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THE NONGRADED SCHOOL--A CRITICAL ASSESSMENT.

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DESIGNED PRIMARILY FOR TEACHERS AND ADMINISTRATORS, THIS MONOGRAPH UNDERTAKES AN EXTENSIVE REVIEW OF EMPIRICAL RESEARCH RELATED TO THE NONGRADED SCHOOL. THE CHIEF PURPOSE OF THE STUDY IS TO EVALUATE EDUCATIONAL ATTAINMENTS OF THE NONGRADED SCHOOL. TOPICS EXAMINED INCLUDE--(1) THE INFLUENCE OF NONGRADEDNESS ON STUDENTS, (2) STAFF APPRAISAL OF NONGRADEDNESS, AND (3) PARENT AND PUPIL REACTION TO NONGRADEDNESS. COMPARATIVE ANALYSES OF THE EDUCATIONAL ATTAINMENTS OF THE GRADED AND NONGRADED SCHOOLS ARE INCONCLUSIVE. (DG)

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THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
OFFICE OF RESEARCH AND EVALUATION
ALBANY, 12224

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A CRITICAL ASSESSMENT

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OFFICE OF EDUCATION

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PREFACE

This work is not an apologia for the nongraded school. It neither describes it nor justifies it. Assumedly, persons reading this review already know this and seek detailed information on the accomplishments of the nongraded school. Hopefully, this report provides that. It attempts to place in a single, compact source an accurate account of the educational attainments of the nongraded school.

Furthermore, while this report strives to be comprehensive it makes no pretense at being exhaustive. This would be impossible. First, nongrading is a high-interest, educational innovation commanding continuous attention. Obviously, topics of educational interest perpetually attract inquiry and, conceivably, at any given moment someone someplace is contemplating or conducting research on the nongraded school. The review had to be circumscribed. We could not wait indefinitely for the reports of possible research to appear or this work would never be completed. So, research reported after June 1966 is not reviewed here. Secondly, only strong empirical studies are included here. Quantities of *anecdotal* research — recapitulations of personal experiences with nongrading — abound in the literature. These, too, were excluded because they are so highly selective and subjective that they add little to the body of dependable knowledge about the nongraded school. Finally, the relation of this report to the larger work on the nongraded school in progress at St. John's University should be made clear. This report is not an end product. It is ancillary to and supportive of the major research effort, the evaluation of the effectiveness of the nongraded school. It is simply one small phase of a much larger evaluation currently (1967) underway at the University.

Clearly a work of this proportion is rarely the work of one, unassisted individual. Indeed, it would be still an unattained desire without the generous cooperation and financial assistance of the New York State Education Department. In a genuine sense they were the initiators for this study and public recognition of their contribution must be made. Additionally, Dr. Louis T. DiLorenzo of the Department's Division of School Evaluation and Research should be singled out for special thanks. He, more than any other person, sustained the project with his personal interest and cooperation.

Crediting all contributors is patently impossible. The list is far too long. However, the unique contributions of a few individuals must be credited or an unforgivable injustice would be perpetrated. Chief among these is St. John's University. Their willing cooperation, assistance, and sacrifice is publicly acknowledged and praised. Then there is Mrs. Dorothy Jessop, the project's research asistant. She, possibly more than any other single individual, deserves special recognition, for it was she who did most of the spadework necessary for this report. For her diligence, dedication, and willingness to work long, arduous hours without complaint, I am eternally indebted. Finally, the self-sacrifice of the seldom-praised contributor to research, the secretary, cannot go unnoticed. Here, Mrs. Frances Termine's contributions to this report must be publicly acknowledged. To all these and to the many too numerous to mention, the author expresses his indebtedness and appreciation.

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REVIEW OF THE RESEARCH

The graded school, since its inception, has been controversial. Contending voices have debated its merits and shortcomings and praised or denounced it according to their convictions. While the debate raged, the graded school flourished and cast a long shadow over school organizational practices in America. Despite its weaknesses, district after district traded in its one-room schools for *the* educational innovation of that era, the graded elementary school, when enrollments made the switch feasible. Perhaps the graded school's allure was its logic and ease of administration. Whatever the reason, one fact is clear: the graded school became an overnight success and a sinewy educational tradition. To this date, the graded school is still the most dominant organizational structure on our educational landscape.

But the early difficulties associated with the graded school did not lessen with usage. If anything, they intensified. Marked increases in enrollments and retentions became commonplace and "normal age-grade" distributions were rapidly tossed askew. Annually, a small army of children were "retained in grade" and, typically, one out of every five children in a graded school could anticipate repeating the work of one or more grades before graduating. Judged by these accomplishments, the graded school was a failure.

A host of proposals for remedying its maladies have been put forth from time to time. The St. Louis Plan, the Pueblo Plan, the Elizabeth Plan, and plans far too numerous to recount have all claimed to have corrected the uncorrectable. At best they proved to be little more than administrative gambits designed to mollify, not right, these wrongs. All had one common flaw: they attempted to fit the child to the curriculum and never the curriculum to the child! However, as interest in child development and learning theory increased so did the demand for a thoroughgoing alteration in the entire idiom of education. With increasing information in these areas it became patent that a viable educational system could never emerge so long as schools remained dedicated to the proposition that the curriculum must remain the constant and the child the variable. This was a pointed and powerful assault on the supporting doctrine of the graded school and the birth of a new construct for education, the nongraded school.

The Birth of the Nongraded School

The precise origins of the first nongraded school are contestable. The flexible progress grouping system of Western Springs, Illinois (1934) is commonly credited with being the first nongraded program in America (24, 57). However, there is a respectable body of evidence indicating that other nongraded programs antedated it. In 1925 Bronxville, New York inaugurated a program which had most of the essentials of a nongraded school (38). Minneapolis, Minnesota (1932) and Rochester, New York (1933) both operated programs that were possibly nongraded in everything except name (38). Regardless of names, schools were making a concerted effort to sever the Gordian knot that bound them to the graded school tradition. By 1936, Richmond, Virginia had replaced its traditional kindergarten and first grade with a junior primary (47) and the following year the Forest Park School, Illinois became nongraded (38) and in 1938 Ellwood, Missouri joined in the noble experiment of ungrading its schools (16). The Albany Plan provided additional hope that the gradeless school could become a reality (2). The massive exodus from the graded school began in the forties and fifties. In 1942 Milwaukee introduced nongrading into its elementary schools and is customarily cited as the school system with the oldest, continuous, nongraded program in the country (18, 24, 40) though the College Avenue School of Clark County in Athens, Georgia still operates a nongraded program started in 1939 (47). In 1944 two Pennsylvania school districts jettisoned their grade school programs and entered the brave new word of nongrading. The Aliquippa Public Schools (56) and the Upper Merion Township Schools (15) pioneered nongrading in the Keystone State. The directory of nongraded schools expanded rapidly and International Falls, Minnesota (1947), Hillsborough City, Florida (1947), Villa Grove, Illinois (1948), Waukegan, Illinois (1948), and Cabool, Missouri (1948) were added to the list of schools with programs approximating the ideals of the nongraded school (10).

In 1959, Goodlad and Anderson codified the ideals of the nongraded school (24). Earlier writers had dealt with these concepts more or less randomly, but it remained for these authors to develop a systematic treatise on the nongraded school. With the coming of their *Nongraded Elementary School* the movement towards gradeless schools went into high gear and scores of school districts published accounts of their experiences with it. The long and muffled rumblings

of discontent with the graded school reached a crescendo and the day of the nongraded school was dawning.

The Growth of the Nongraded School

With these auspicious beginnings and apparently receptive climate for change, has the nongraded school managed to become a viable proposition for school reorganization or is it simply another pedagogical curio, a fad of the forties, that streaked across the educational firmament and disappeared into some unknown eternity? Has it really managed to pierce the protective shell encasing the long-established graded school and to stand as a formidable contender to it? Partial answers to these and related questions are available. Five surveys by large research organizations have clocked the growth of the nongraded schools (17, 18, 25, 45, 46). The National Education Association (N.E.A.) and the U.S. Office of Education (U.S.O.E.) have each conducted two national surveys and the research division of the New York State Education Department one statewide study on the prevalence of the nongraded school. These surveys report similar data and so direct comparisons of their findings are possible. The differences occurring are minor and tend to be superficial rather than substantive. Typically, each survey includes an item or two not found in other surveys, but the commonalities are so great that a body of substantial findings on the extensiveness of the nongraded school results.

Two surveys were conducted in 1958, one in 1960, and two in 1963. The N.E.A.'s pollings took place in 1958 (45) and 1963 (46), the U.S.O.E.'s in 1958 (17) and 1960 (25), and the N.Y. State survey in 1963 (18). This concentration of studies into a reasonably short time period in some respects lessens their cumulative value. Were they distributed over a longer and better-spaced time interval, clearer impressions of the growth of the nongraded school may have emerged. The major advantage accruing from these surveys is that they approximate each other and provide us with crude measures of the reliability of each.

Current Status

Variations in the current estimates of the prevalence of the nongraded school are clearly discernible from the findings presented in figure 1. They course between a high of 30.0 percent in the N.E.A.'s 1963 survey and a low of 5.5 percent in the U.S.O.E.'s 1960 survey.

If these estimates are trustworthy it means that in three short years the number of schools with nongraded programs increased more than six fold. If true, the growth of the nongraded school has been little short of phenomenal. But it is hard to believe that one could knock on one of three schoolhouse doors and be admitted to a nongraded school. Intuitively, one realizes theses estimates are too disparate to be dependable.

One possible explanation for these differences could be differences in perceptions about the essence of a nongraded school. The differences noted could be merely a reflection of the differences to be found between the shadow and the substance of nongradedness in the programs of schools claiming to be nongraded. Many schools have freely dubbed as "nongraded" their diluted graded programs which fall considerably short of the ideals of the nongraded school. In 1959 Goodlad estimated that considerably fewer than 1 percent of the nation's schools were nongraded (23). Apparently time has done little

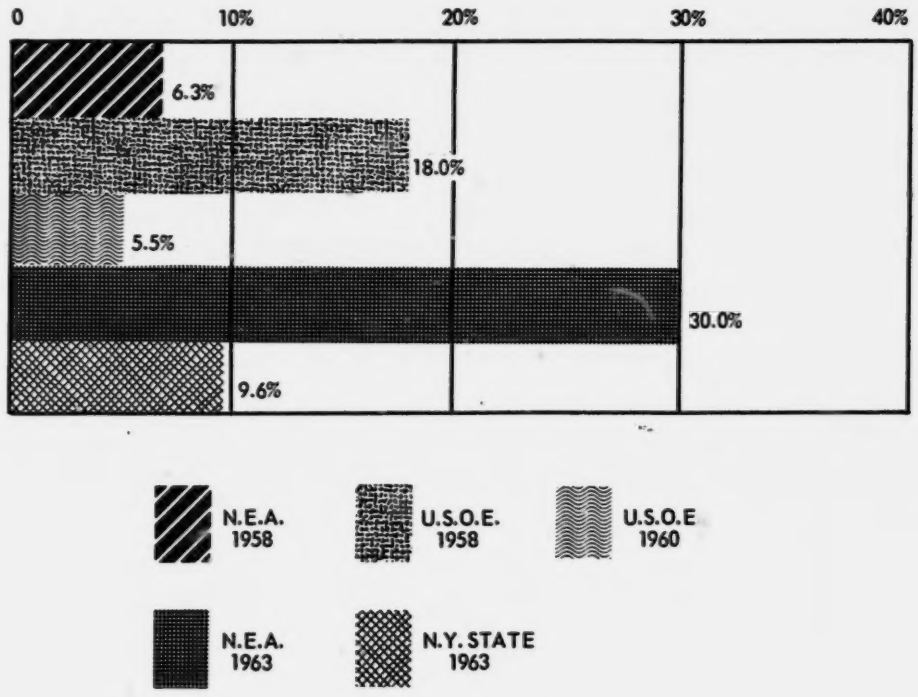

Figure 1 ----- Percentage of school districts having a nongraded program in one or more classes in the district

to cause him to up this estimate for in 1961 he felt that something less than 125 schools were operating *truly* nongraded programs (47).[1]

Since the reliability of these independent estimates of the prevalence of nongraded programs is suspect, the most accurate estimate may lie between the extremes. When the original data on which these estimates are based are pooled and new percentages calculated, we find that slightly less than 11 percent of the districts canvassed have nongraded programs. This is still considerably higher than Goodlad's most generous estimate but not too far from the typical rate of adoption for innovations during their early stages (50).[2]

Since these studies span five years it might be possible to use them to chart the rate of growth of the nongraded school during this period. Because of the initial irregularities in these studies the resulting growth lines are jagged and no clear trend emerges from this process. The earliest estimates peg the percentage of schools with nongraded programs somewhere between 6.3 percent and 18.0 percent. Two years later the estimate shrinks to 5.5 percent and in 1963 it fluctuates between 9.6 percent and 30.0 percent. So, little stable information on the rate of growth of the nongraded school appears to be currently available (Figure 2).

Since the N.E.A. and the U.S.O.E. each conducted two surveys between 1958 and 1963, it might be revealing to examine their estimates independently. In 1958 the N.E.A. found 6.3 percent of the schools polled had nongraded programs. Five years later their estimates boomed to 30.0 percent, a prodigious growth of almost 500 percent. If these estimates are stable, the rate of adoption of nongradedness is nothing short of spectacular. However, treating the U.S.O.E. data for a similar period comparably produces an interesting reversal of this picture. Starting with the same base year, 1958, they report 18.0 percent of the schools tapped had nongraded programs. Two years later, however, they revised their estimate downward and report 5.5 percent of the schools surveyed had nongraded programs. This attrition, while startling, is consonant with other findings. It is not unusual for schools once credited with having a nongraded program to report on later inquiry that a nongraded program

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[1] John I. Goodlad, in a letter to the N.E.A. Research Division dated April 19, 1961, estimated that of the nearly 1,000 schools attempting nongrading only about 125 have managed to develop a *truly* nongraded school.

[2] Everett M. Rogers found that the willingness of schools to adopt educational innovations appears to approximate a normal curve and in the early stages the innovation can be found in approximately 13.5 percent of the school districts in the country.

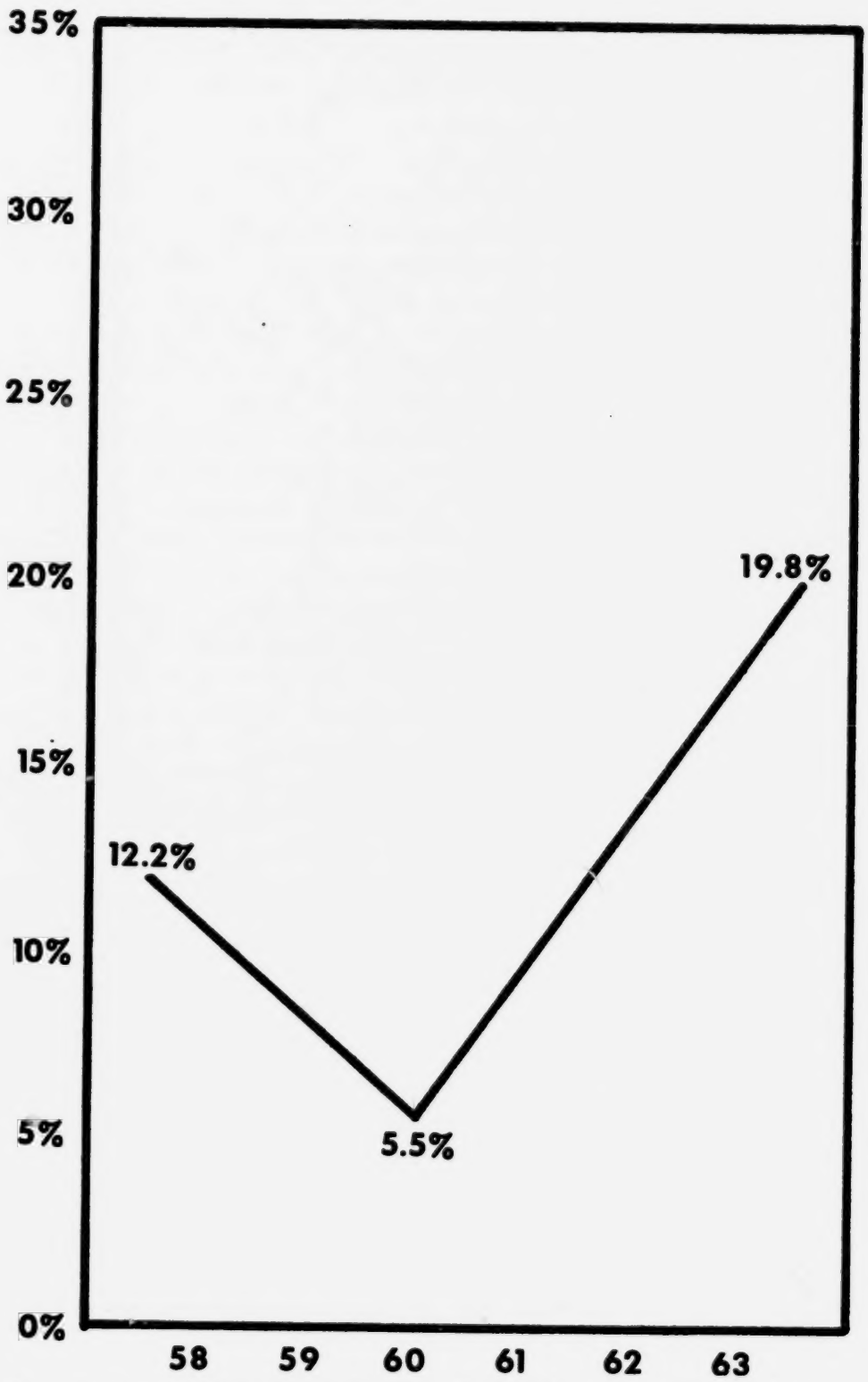


FIGURE 2. — Estimated percentage of schools with nongraded programs, 1958–63

never existed in their district (40). Furthermore, two out of three school districts introducing nongraded programs later abandon them and revert to their original graded schools (25). This vacillation could easily account for the apparent discrepancies in the two U.S.O.E. surveys, but sheds little light on the reasons for the differences reported by the N.E.A.

Further Expansion of the Nongraded School

Educators, while interested in accounts of past accomplishments, seem more attuned to estimates of future developments and so some soundings of the future growth of nongrading have been taken. Typically, districts polled on the present status of nongraded programs within their districts are asked to *guestimate* the future of nongradedness in their districts. These prophesies are presented in figure 3[3].

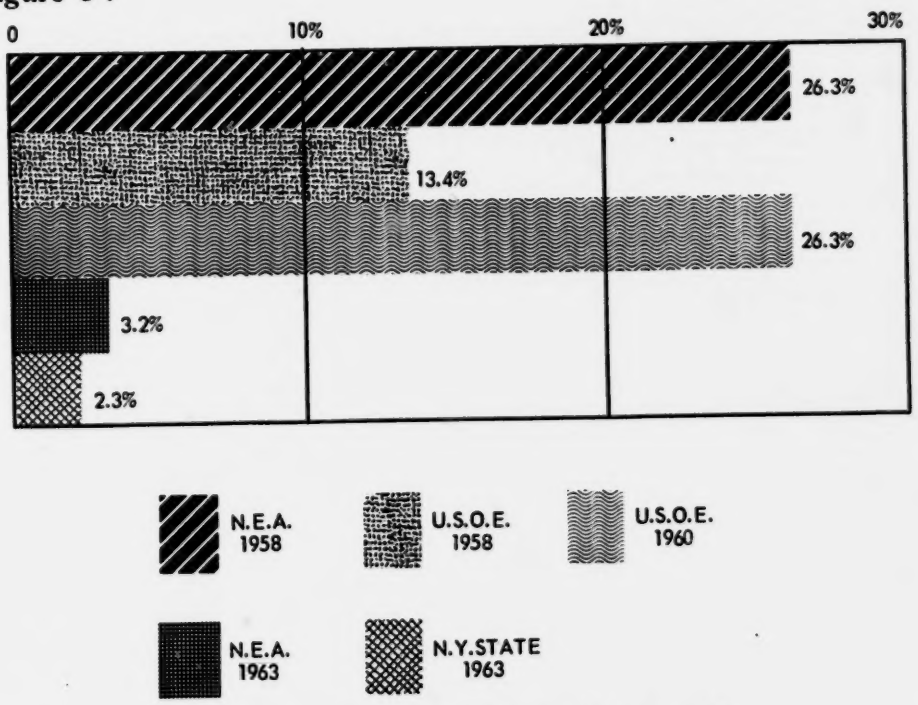


Figure 3 ----- Percentage of graded school districts considering adopting nongraded programs in the future

[3] The figures presented here are in some cases different from those found in the original surveys. In the original data, all respondents were included in calculating anticipated growth, even those presently operating nongraded programs. It seemed erroneous to include those presently operating nongraded programs when estimating numbers of districts anticipating adding a program. For this reason, the number of school districts currently operating nongraded schools were subtracted and new percentages calculated.

Variability is again the guiding principle for these estimates. Here, the U.S.O.E.'s estimates are the most generous while New York State's the most conservative. This, in isolation, appears to be an anomaly, but in the larger picture some of this discrepancy can be explained away. Nationally, nongrading appears to have been accepted more readily in regions other than the North East (17, 25). Perhaps the longer tradition of the graded school in this region has made departures from it much more difficult and it still reigns as the preferred model for school organization.

Used singly, these results, like those preceding them, tell us little and pooling the estimates, as before, is equally unrewarding. To see if any firm estimates of the anticipated spread of the nongraded school could be generated from these data, the N.E.A.'s and the U.S.O.E.'s second surveys were treated as followup studies to their initial inquiries. Using this procedure, the N.E.A.'s 1958 estimate of 26.3 percent collapses to 3.2 percent in the second survey, a considerable cutback in the number of schools planning to inaugurate nongraded programs in their schools. If the available data on this question behave as all data to date, one would expect to find the U.S.O.E.'s data contradicting that of the N.E.A. when treated similarly. We are not disappointed in this anticipation. In 1958 the U.S.O.E reported 13.4 percent of the schools polled felt they would be introducing nongraded programs in the future. Two years later this estimate doubled and 26.3 percent of the schools now feel they are "going nongraded." Possibly the only major lesson to be learned from these surveys is the peril of predicting from survey research.

However, if we strike a mean for these data the inherent errors in each may cancel each other and a truer picture of the growth of the nongraded school may emerge. At best, however, this is slightly better than blind guessing. When done, we find that about 23 percent of the nation's schools might be expected to adopt nongraded programs in the future. For what it is worth, the writer feels that, to say the least, this is an exaggerated estimate and should be taken with a generous quantity of salt.

School District Size and the Nongraded School

From the above presentations it is obvious that present research is unable to provide flawless estimates of the current status or anticipated growth of the nongraded school. Perhaps this illusive pattern is imbedded in the relation between school district size and nongraded practices. Essentially we are asking if large school districts are

more inclined to become nongraded than small school districts. Examining these variables concurrently appears to yield partial answers. These are depicted in figure 4.

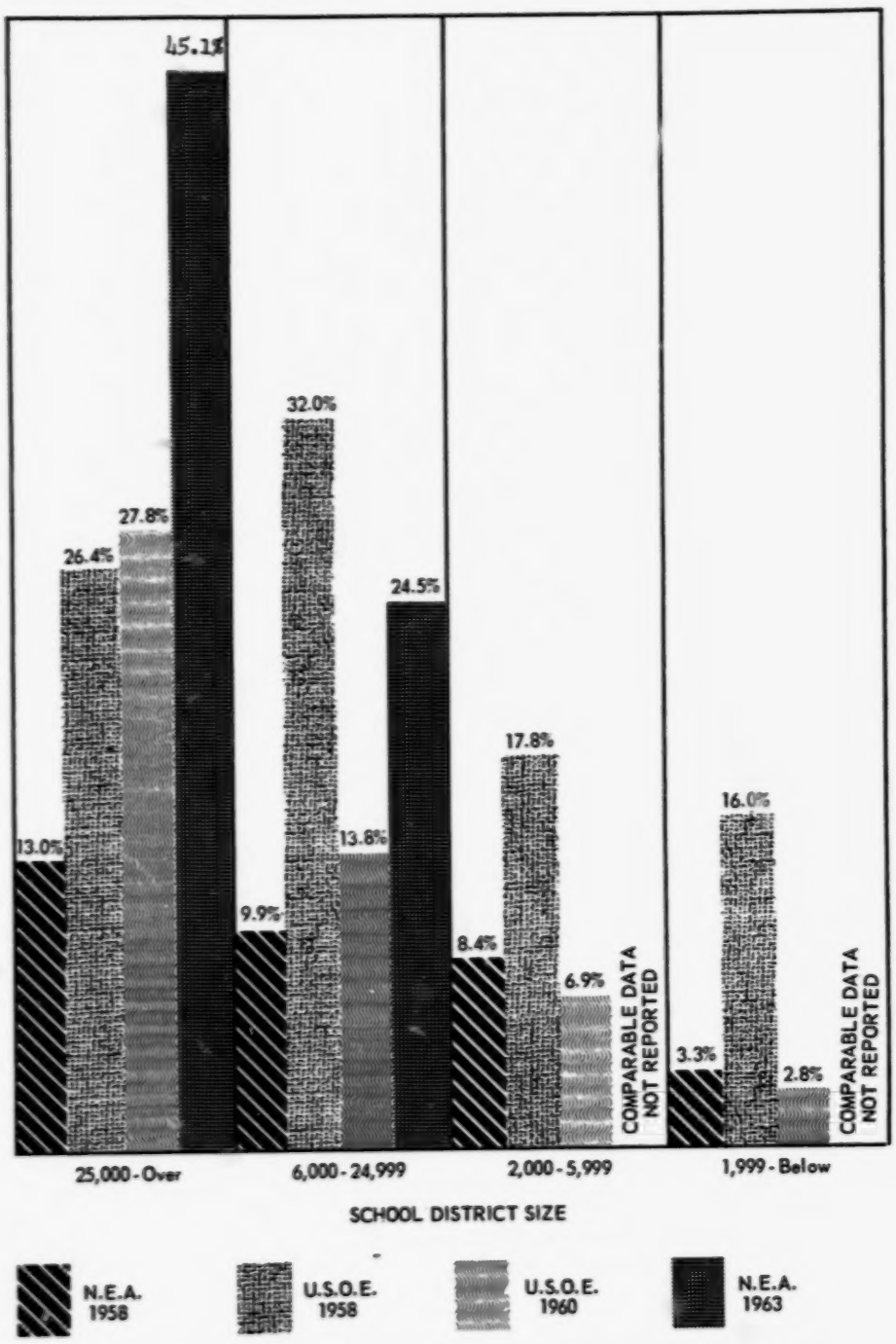


Figure 4 ----- Percent of public school districts with nongraded programs by district size

Indeed, there appears to be a marked tendency for large school districts to introduce nongraded programs more readily than small districts. However, too much should not be read into this statement. It does not mean by any stretch of the imagination that nongrading is the dominant pattern of school organization in large school districts. Nothing would be further from the truth. It simply means that in large districts one is more likely to find one or more instances where a nongraded sequence has been introduced than in small districts. This, quite clearly, does not mean a full-scale commitment to nongrading in these districts. Since large districts have many more instructional units than small districts, they can introduce pilot programs without a major renovation of their basic organizational practices. This would not be true for small districts, especially those with a single elementary school.

There are other less obvious, though equally valid, reasons for large districts becoming the home of the nongraded school. Typically, large districts are located near urban centers and are ringed by colleges and universities. Conceivably, the forward-looking faculty of these institutions have developed associations with these districts and encouraged them to become innovative and nongraded. Next, large districts are able to provide their staff with services not typically found in smaller districts. Some of these districts have highly developed and efficient curriculum development units which help teachers broaden their educational horizons and put into practice the best educational thinking of the time. Finally, in large districts the sheer weight of number of staff increases the possibilities that a sufficient number of venturesome teachers can be found who are willing to put the principles of nongrading to the test.

If these findings can be taken as straws in the educational winds of change there would appear to be a tendency for the large districts to head the march towards the nongraded school. This is one of the few instances when marked disagreement does not exist between the estimates provided by the N.E.A.'s and the U.S.O.E.'s surveys. In 1958 the N.E.A. found nongrading in 13.0 percent of the schools reporting. Five years later this estimate more than tripled and 45.1 percent of the large districts claimed to have at least one nongraded sequence in their districts. Likewise, the U.S.O.E. found increases, though not as dramatic as those of the N.E.A., in the number of large districts operating nongraded programs. In 1958 they estimated 26.4 percent of these districts had nongraded programs. Two years later a similar estimate, 27.8 percent, was reported for these

districts. Possibly, if the time between the U.S.O.E. surveys had been greater so would the increases in the percentage of large districts claiming to have nongraded programs.

A rough approximation of this pattern seems to be repeated for the classification of next largest school districts, 6,000 to 24,999 enrollments. Here, while the N.E.A.'s estimates did not triple as before, increases are noted. Between 1958 and 1963 the estimates went from 9.9 percent to 24.5 percent, an increase of 14.6 percent of the districts in this category with nongraded programs. Returning to the more familiar pattern of contradictory findings, the U.S.O.E.'s reports register a decline in the number of schools of this size with nongraded programs. It plummeted from a high of 32.0 percent in 1958 to 13.8 percent in its 1960 survey. Again, one can only guess at, the influence of the closeness of the two U.S.O.E.'s surveys on its findings.

Unfortunately, the lack of comparability in these surveys for the remaining categories of school size limits their usefulness. Only the U.S.O.E. has included smaller districts in estimating the extensiveness of nongrading and from the data reported it appears small school districts may have declared a moratorium on their efforts to nongrade. Possibly these districts have developed a "wait and see" attitude towards the nongraded school and will learn from the experiences of the larger districts before committing their schools to a nongraded program.

Developing Nongraded Units

While it may be impossible to depict with any semblance of accuracy the extensiveness of nongrading in America today, one thing is clear — schools want to nongrade! Educators are all too familiar with the gnawing shortcomings of the traditional graded school and are willing to work to establish a program that has even the slightest promise of providing more meaningful educational experiences for boys and girls. But restructuring a process as complex as education is an enormous task and there are few firmly established guidelines to follow in this undertaking.

Nonetheless, schools have nongraded their programs. How did they accomplish this? What procedures did they employ to obliterate the symbols and vestiges of the graded school and become nongraded?

The minimally accepted criteria for a nongraded program generally requires the consolidation of two or more of the building blocks

of the graded school into a single instructional unit. When this is accepted as the standard, the number of ways nongrading may be accomplished is almost infinite. These nongraded units could be formed by combining a kindergarten and a first grade, a first and second grade, or a second and third grade. Furthermore, three or more grades could be consolidated for the same purpose. Indeed, the possible combinations are staggering. Again, some districts, approximately one in five, have primary units or neighborhood schools for grades K-3 (25, 45). Better than half the school districts in the United States have a six year elementary school sequence and about a quarter of the districts include the eight grades in their elementary division (45). All of these variations in districtwide school organization increase the possible number of grades that could be combined to form a nongraded unit.

With this as background, it might be interesting to turn to the patterns for nongrading employed by districts operating such units. Figure 5 depicts the expressed preferences of school districts who have instituted nongraded sequences. Clearly, practice seems to have compressed the infinite number of possibilities for consolidating graded classes into nongraded instructional units into a manageable, finite number of actual practices. One need look neither very long nor hard at figure 5 before concluding nongrading means removing grade designations from all primary level classes and forming a single instructional unit from them. By far, the most prevalent pattern for forming a nongraded unit seems to be the consolidation of grades one through three into a single unit. The next priority appears to include kindergartens in these units. Taken together, these amalgamation procedures appear to account for better than half of the patterns used to develop nongraded primary instructional units.

One other interesting observation looms from these data. When faculties think of nongrading their programs, they are thinking almost exclusively of instruction at the primary level where better than 75 percent nongraded programs are found. In passing, it must be observed that the architects of the nongraded school never conceived of it as a structure exclusively applicable for the primary school. If nongrading and the theory of continuous progress is a viable educational proposition it cannot be restricted to one phase of education but should permeate all levels. It seems completely unrealistic to assume that the primary is the only place where the ceilings need raising and the floors need lowering while the rest of the educational structure stands staunchly unaltered. Practice, not theory, made it the non-

Grades Combined	U.S.O.E. 1958	N.E.A. 1958	N.E.A. 1963
K–1	.4%	.4%	....%
K–2	.9	13.5	.9
K–3	34.0	10.4	8.8
K–4	....	1.8	....
1–2	16.1	11.3	5.2
1–3	40.0	43.0	64.9
1–4	....	9.1	1.8
1–6	....	5.7	5.2
1–8	....	....	2.6
2–3	.9	....	....
2–6	....	....	.9
3–4	....	4.8	....
Mixed	....	....	4.4
Other	7.7	....	3.5
Not indicated	....	....	1.8
Total	100.0%	100.0%	100.0%

FIGURE 5. — Elementary school grades combined to form a nongraded unit

graded *primary,* for only a negligible number of districts extended nongrading beyond these bounds. Perhaps districtwide organizational patterns have encouraged this practice and nongrading has a better chance of being implemented in districts with separate primary units or neighborhood primary schools.

If nongrading has made only few indelible impressions on the organizational practices of the intermediate division, secondary education has remained marvelously untouched by it. To be sure, a few, highly publicized nongraded programs at the secondary school level can be found but these are noteworthy because they are the exception rather than the rule. Florida's Melbourne and Nova High Schools are perhaps best known for their work with nongrading. A few other secondary schools like O'Farrell Junior High School in San Diego, and Middletown High School in Rhode Island might also be cited as schools experimenting with nongrading. But when these few have been named the list of secondary schools with nongraded programs is virtually exhausted.

Of all the secondary schools canvassed only 12, a scant 3.4 percent (46) reported they presently operate or are even considering

instituting a nongraded sequence into their secondary school program. Even an exhaustive review of existing nongraded programs elevates the count to only 19. This extension of nongrading into the secondary school can hardly be viewed as a serious rejection of the graded school concept for secondary education and a significant movement towards the nongraded high school.

Those who have tried nongrading at the secondary level are most enthusiastic about it and freely praise its success and potentials. In honesty, however, it must be stated that few secondary schools have followed the lead of these pioneers and the proponents of nongradedness for secondary education appear to be the proverbial prophets without honor in their own land.

The Influence of Nongradedness on Children

Understandably, research in nongradedness generally appraises its influence on students in two broad areas, student achievement and adjustment. Differences in these areas for graded and nongraded classes are contrasted and evaluated for statistically significant differences. This procedure permits one of three possible conclusions: (1) children from nongraded classes really do better than children from graded classes; (2) children from graded classes do better than their counterparts in nongraded classes; or (3) children from either type class do equally well in these areas. This report of the research on nongradedness follows this procedure.

The Influence of Nongradedness on Academic Achievement

When educators ask, " Is nongrading effective?" apparently they want to know its influence on the reading and arithmetic performance of children. Departures from this generalization are the exception rather than the rule. In the studies reviewed, the impact of nongrading on children's reading accounted for 48 percent of the variables studied and arithmetic 26 percent. Because of this concentration in two curriculum areas, little is known of the influence nongradedness may have in other areas. Language arts, perhaps, is an exception to this conclusion since it comprises 11 percent of the research done here. Certainly work-study skills, science, and social studies have been studied so infrequently that they constitute the " neglected areas " of research on the influence on nongradedness on student achievement. Given these data, generalizations about the influence of nongradedness on academic attainment are indeed tenuous. Figure

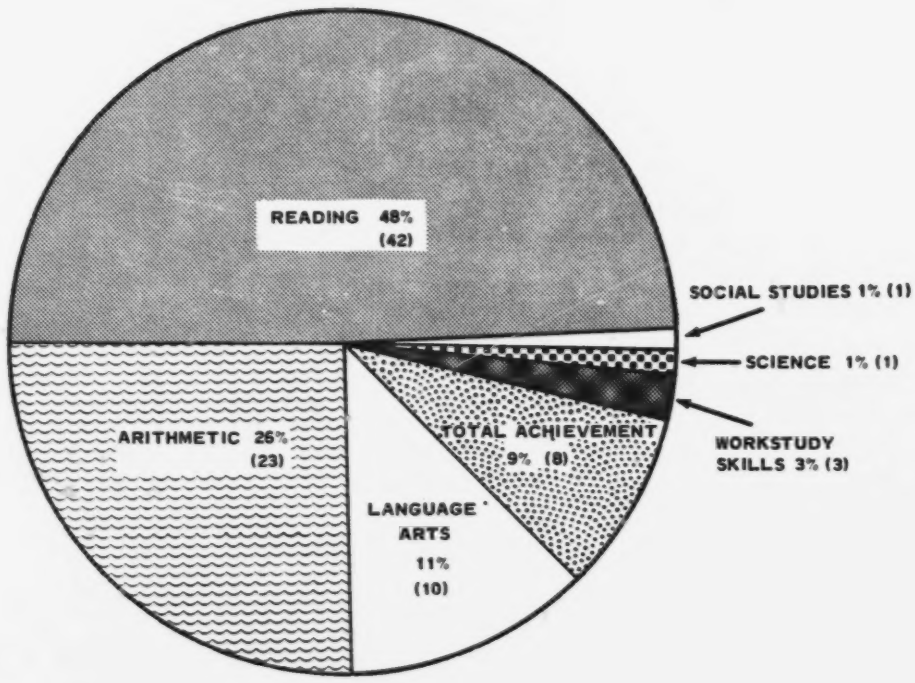


Figure 6 — Percentage of times various subject areas have been used in appraising the effectiveness of the nongraded school in 33 studies

N = 88: Total number of times all forms of achievement were studied.

6 presents the distribution of research on student achievement in various academic areas.

Because of the limited research conducted in most curriculum areas, one would be hard-put to develop firm conclusions on the superiority of nongradedness. Lack of studies alone is not the only reason for caution. If the findings of the studies conducted, limited as they may be, concurred, educators could decide to institute a nongraded program because it all but guarantees increases in student achievement or to abandon the entire concept because it has been proven nonbeneficial. However, the diversification of findings does not permit these simple choices.

Reading, because of its preeminence in these studies and in the typical elementary school, merits closer inspection. Though it claims the lion's share of the research, unequal consideration is given to the various aspects of reading in the studies reviewed. Measures of general reading attainment were used 15 times while the subskills of comprehension and vocabulary development 14 and 13 times

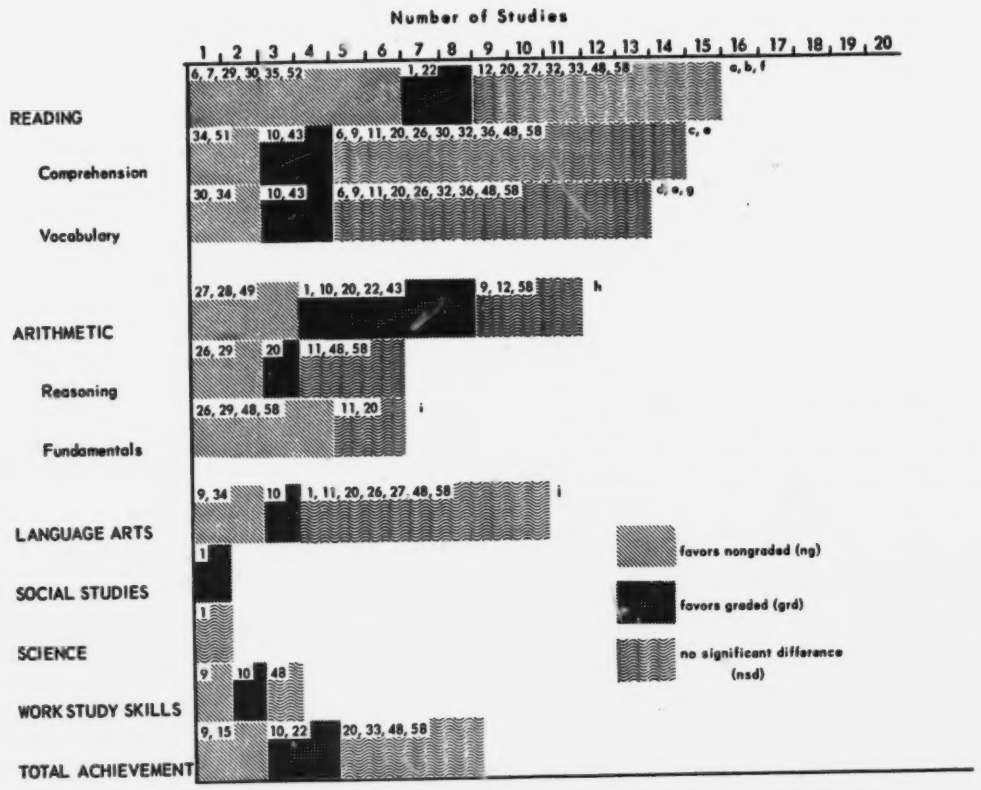


Figure 7----- Influence of nongrading on student achievement in 34 studies of nongrading

a (52): two of three comparisons by grade level favored ng significantly.

b (35): 21 of 22 comparisons favored ng significantly.

c (43): results reported only for those areas in which the groups were found not to differ significantly at the beginning of the study.

d (43): two of three comparisons reported favor grd significantly.

e (26): differences examined by grade level and generally favored ng; only one of three years yielded significant differences, however.

f (27): four of six comparisons by grade level showed nsd; two favored ng.

g (6): six of nine comparisons yielded nsd; three favored ng significantly.

h (27): five of six comparisons by grade favor ng, and three of the comparisons are significant; one comparison yielded nsd.

i (48): two areas studied, Arithmetic Concepts and Arithmetic Computation, both favored ng but only the first yielded significant differences.

j (26): three of four comparisons showed nsd.

respectively (Figure 7). In short, not all of the research on the influence of nongrading on children's reading achievement considered the same aspects equally.

Even so, one thing is clear: it cannot be claimed that nongrading makes a significant difference in the general reading attainment of children. Half of the studies reviewed were unable to find substantial differences in the general reading performance of children from graded and nongraded classes (12, 20, 27, 32, 33, 48, 58). In the remaining

studies, (6, 7, 29, 30, 35, 52), the children from nongraded classes appeared to have a slight advantage over their counterparts from graded programs (1, 22). If one adds to this discrepancy the findings of the unsystematic research, a somewhat stronger case for the merits of the nongraded school could be developed. All studies in this category (3, 4, 19, 41, 42) report differences favorable to children from nongraded programs.

Turning to the subtest measures of reading performance produces nearly identical results. "No significant difference" in children's scores in reading comprehension and vocabulary development appears to be the dominant finding of this research. Seventy percent of the research in this area attests to this conclusion and where differences occur they are nearly equally favorable to the graded (10, 43) and nongraded programs (30, 34, 51). Adding the results of the unsystematic studies reported does little to upset this finding. One of these studies reports differences favorable to the nongraded (4), one to the graded (39), and one found no differences (59). The indiscriminate character of these findings on the subtests of reading skills is not surprising. Typically, the tests used for these purposes have less discriminate ability than the total reading achievement score and this is particularly true for the measures used at the primary levels.

Arithmetic achievement produces more symmetric but also more baffling findings than reading and does little to determine the preferability of the graded or the nongraded school. If one looks at total arithmetic achievement, children from graded classes appear to have a slight edge (1, 10, 20, 22, 43) over children from nongraded classes (27, 28, 49) and the number of studies reporting no difference (9, 12, 58) is considerably less than in the case of reading achievement. Furthermore, the unsystematic studies do little to upset this finding. Here we find one study showing advantages for children from nongraded classes (4) and one reporting no significant differences in the arithmetic attainments of children from graded and nongraded classes (39).

Analysis of the arithmetic subtests of reasoning and fundamentals tends to upset these conclusions. An examination of the arithmetic achievement subtests shows that in only one comparison, in arithmetic reasoning, was the achievement of children from graded classes superior to that of children from nongraded classes (20). All other comparisons on arithmetic reasoning divided almost equally between

favoring the nongraded (26, 29) and no significant difference (11, 48, 58). In arithmetic fundamentals the children from nongraded programs appear to have the advantage as four of the six studies reported here found differences favoring them (26, 29, 48, 58) while the remaining two found no significant difference (11, 20). No study reports the achivement of children from graded classes significantly superior to that of children from nongraded classes in arithmetic fundamentals. Again, turning to the unsystematic studies we find them nearly mirroring these results. Here, two studies give the edge to children from nongraded classes (4, 59) while one reports no difference (41). While the children from nongraded classes appear to have an advantage over their counterparts from graded classes in arithmetic fundamentals and reasoning it is far from commanding for nearly every study reporting an advantage there is one reporting no significant difference.

Given these data, it would be difficult to develop an uncontestable argument for the positive influence of nongrading on the arithmetic attainments of children.

Language arts results, like reading and arithmetic, do little to establish the unequivocal instructional superiority of either the graded or nongraded school. Seven out of ten of the studies in this area found only negligible differences in the language arts performance of children from these classes (1, 11, 20, 26, 27, 48, 58). Of the remaining studies, two (9, 34) reported differences favoring the nongraded and one the graded (19). These data hardly attest to the unquestioned superiority of either organizational pattern.

Total achievement scores, too, fail to discern differences between the performance of children from graded and nongraded classes. Here, half of the studies report no significant differences (20, 33, 48, 58) and the four remaining studies show nongraded (9, 15) equally efficient as graded (10, 22) in producing achievement increments.

The other areas of academic skills development, social studies, science, and work-study skills, are studied so infrequently that analysis of the findings is unwarranted. Certainly no hard and fast conclusions about the efficacy of nongradedness on children's performance in these areas could be based on these studies. While the findings are reported in figure 7, the reader must again be cautioned against drawing conclusions based on these data and applying them to other situations.

The Influence of Nongradedness on Adjustment

Better student achievement is not the only claim put forth for the nongraded school. Its advocates maintain implicitly or explicitly, that superior student adjustment is attained in the nongraded schools. Certainly student adjustment and personality development are signal concerns of educators and, quite reasonably, they are interested in developing learning settings which foster this goal. Understandably, then, researchers have appraised the influence of nongradedness on student adjustment.

Unfortunately, only eight of the studies reviewed included measures of student adjustment (9, 10, 11, 22, 27, 29, 32, 58), and the diversity of procedures employed further confound these findings. Sociograms, adjustment inventories, and anxiety scales have all been used as indices of student adjustment. At first this diversity may seem a severe disadvantage and the restrictions it imposes on drawing hard and fast conclusions should not be underestimated since direct comparisons among the studies cannot be undertaken. But the very diversity found in the measuring of adjustment provides an advantage important to this phase of the review. It provides us with a broad, all-encompassing definition of adjustment and gives us insights into many phases of student development. This, in the final analysis, is desirable if intelligent decisions are to be made about the influence of nongrading on the nonacademic considerations educators have for students.

But no matter how adjustment is defined or measured, there is scant evidence to support the contention that it is improved by attending a nongraded school. Of the 32 separate adjustment entries appearing in figure 8, for example, the overwhelming majority, 26, indicate that there is no significant difference in the adjustment of children from graded and nongraded classes. Only four of these measures — general adjustment, social adjustment, social maturity, and freedom from age stereotypes — showed differences favorable to children from nongraded classes while the remaining two — social participation and freedom from defensiveness — were favorable to children from graded classes.

Though schools clearly covet improvements in student adjustment few of them regularly assess their accomplishments here. Unfortunately, this is also true when the influence of nongrading on students is being appraised. Understandably, the available devices for measurement of adjustment are imperfect and not amenable for use with

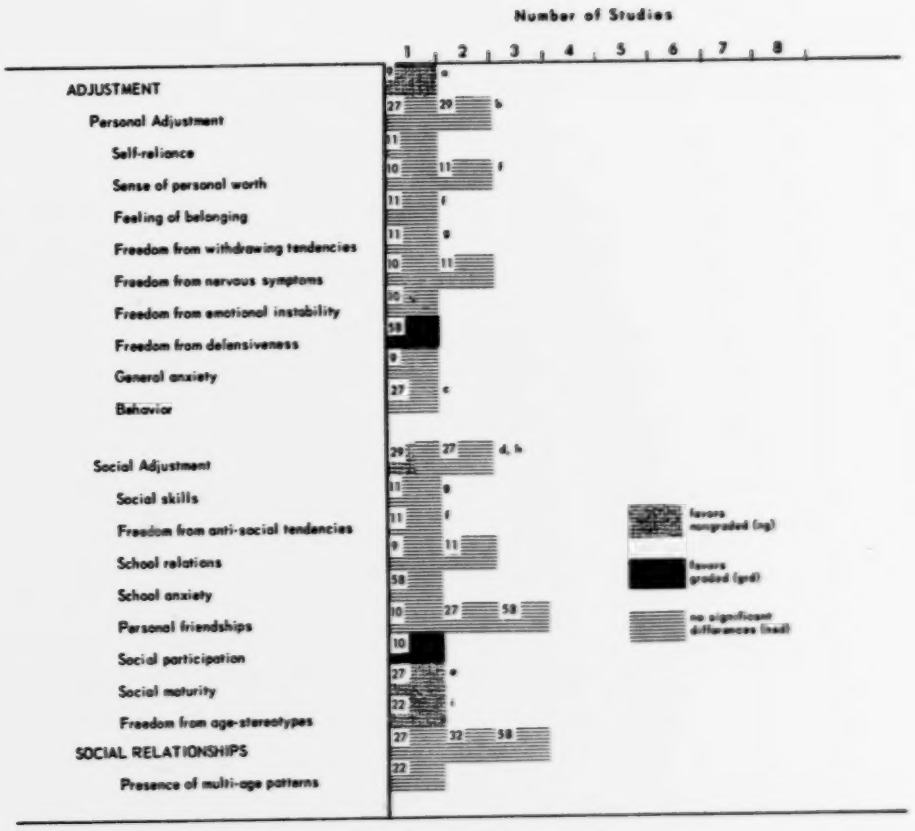


Figure 8 ----- Influence of nongrading on student adjustment and social relationships in 8 studies of nongrading

a (9): two of three comparisons of personal and social adjustment favored ng significantly.
b (27): results favored ng in grades 1-6; only grade 2 results were significant.
c (27): results favored ng in grades 1-6; only grades 2, 5 results were significant.
d (27): results favored ng in grades 1-6; only grade 3 results were significant.
e (27): results favored ng in grades 1-6; grades 2, 3, 6 showed significant differences.
f (11): nsd in grades 3-5; grade 6 results favored ng.
g (11): nsd in grades 4-6; grade 3 results favored ng.
h (29): nsd in nongraded and graded boys; nongraded girls significantly different.
i (22): all 22 items favored ng; 11 of the 22 comparisons were significant.

young children. Many adjustment measures require reading and writing skills far beyond those developed by the typical child in the primary grades and are inappropriate for research activities with this age group. One must recognize this limitation before making extravagant claims for the benefits of nongradedness on student adjustment. But even within this restriction, there is little evidence to support the claim that students from nongraded classes exhibit superior adjustment to that of children from graded classes.

The Influence of Nongradedness on Achievement and Adjustment by Years in School and Student Ability

Some studies go beyond gross comparisons and analyze student achievement and adjustment by class level and ability group. The reasonableness of this procedure is obvious. If nongradedness enhances achievement and adjustment for certain students, educators should know where maximum results are obtained. This information may be crucial when inaugurating or expanding nongraded programs.

The Influence of Nongradedness on Student Achievement and Adjustment by Years in School

Again, comparisons of student achievements by class level find reading and arithmetic leading the list of variables studied. Except for language arts, comparisons in other curriculum areas are negligible and detailed analysis of them is not warranted (Figure 9).

Furthermore, the bulk of these comparisons are made in the primary division with so few comparisons in intermediate classes that they, too, can be disregarded. In these studies, the third grade is most frequently involved with the second and the fourth grades following in that order. Perhaps this distribution reflects the extent to which nongrading has been assimilated into the typical nongraded *school*. Surely it mirrors the popular misconception that nongrading is for primaries only while the intermediate classes may adhere unflaggingly to the graded school tradition. Perhaps this blissful symbiosis is possible, but at best it is a compromise of the supporting beliefs of the nongraded *elementary school* movement. Furthermore, the testing conducted at the intermediate level does not reflect an extension of nongrading to this level so much as an effort to examine the residual effects of earlier nongrading on later school performance.

No matter how the results of these studies are construed the outcomes are always the same: nongrading appears to make little difference in the performance of children at any level in any subject area. In the vast majority of cases the differences in attainments of children from graded and nongraded classes are negligible. This is a reasonably stable outcome of the research in this area, too. Surely instances can be cited where children from nongraded classes excelled their colleagues from graded classes, but the margin of difference is so slim that it can hardly be taken as irrefutable proof of the excellence of nongrading.

Year or Grade Level

Program Favored	1		2		3			4			5			6		
	Nongr.	Grd.	ND	Nongr.	Grd.	ND	Nongr.	Grd.	ND	Nongr.	Grd.	ND	Nongr.	Grd.	ND	Nongr.	Grd.	ND
READING	2		2	2	2	4		3	3	3		3	3			1		2
Comprehension	1	1	1	1					3						1			1
Vocabulary	1	1	1	1					3						1			1
ARITHMETIC	2	1		1		2	1	1	2	2								2
Reasoning						1		1	3						2	1		1
Fundamentals						1	1		3	1					1	1		1
LANGUAGE ARTS			2	2					4						2			3
WORK STUDY SKILLS									1									
TOTAL ACHIEVEMENT	1		1			3	1		2	1								1
ADJUSTMENT	2		1	1		1	1		3			3						3

Figure 9 ---- Comparison of pupil achievement and adjustment by year or grade level in 29 studies of nongrading

Differences in adjustment, too, adhere to this pattern. No matter when differences in adjustment are tested for, the results are always the same: there is no significant difference in adjustment of children from graded and nongraded classes at any level in the school program. This is as true for children currently in nongraded programs as it is for those who have had this type of primary level experience and moved on to the intermediate classes.

The Influence of Nongrading on Student Achievement and Adjustment When Student Ability Is Considered

If *the* reason for the failure of the graded school had to be selected it would probably be its inability to cope with individual differences. When differences in children's abilities and achievements are laid side-by-side they present a formidable instructional challenge. Many of the earlier propositions for modifying the graded school recognized this and, believing differences were soluble, tried to group them away. This belief is not extinct and many programs purported to be nongraded rely heavily on grouping to reduce the instructional range found in the typical class.

Since the efficacy of nongrading on children of diverse ability is still a paramount interest to educators, research has addressed itself to this topic. Six studies have analyzed the attainments of children from nongraded classes with diverse abilities (12, 29, 32, 36, 43, 49). In presenting these findings three categories are used (Figure 10).

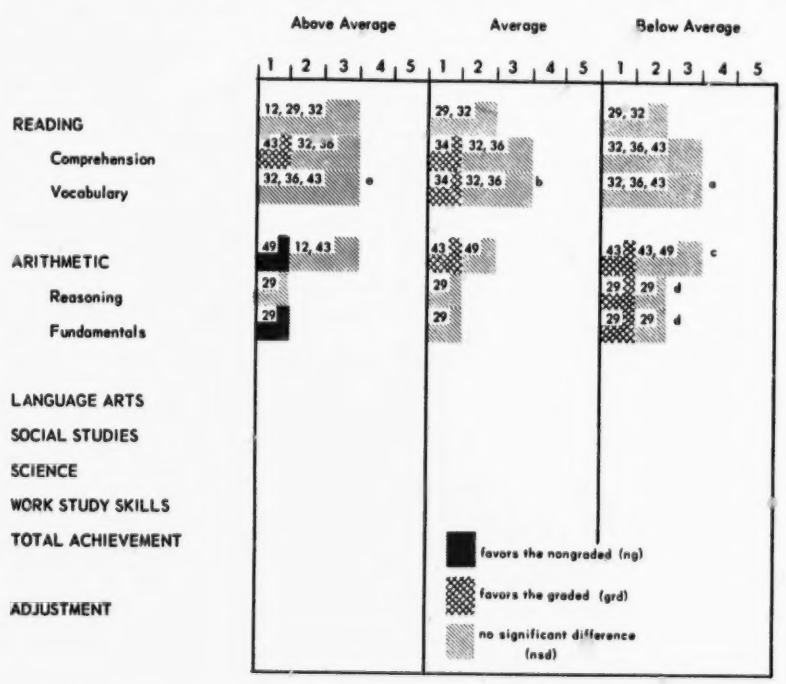


Figure 10 ----- Comparison of pupil achievement and adjustment by ability groups in 6 studies of nongrading

a (43): of 3 comparisons 2 showed nsd and 1 favored the control.

b (43): of 3 comparisons 2 favored the control and 1 showed nsd.

c (43): first year results favored the control; second year results showed nsd.

d (29): boys showed nsd; control girls surpassed the experimental significantly.

By and large, nongrading appears to have little influence on the attainments of children in any specific subject regardless of their abilities. The predominant finding of the research in this area is that there are no significant differences in the scholastic achievements of children of varying abilities resulting from attending nongraded schools. Where exceptions to this generalization occur the differences tend to favor the "Average" and "Below Average" child from graded classes. Indeed, only twice (49, 29) were the reported differences in favor of children from nongraded classes and these increments were achieved with the "Above Average" child.

These results are remarkably stable and the addition of data from the unsystematic studies does little to modify the outcomes. One study (30) reported uniformly superior achievements for children from nongraded classes while another (1) found children in all ability categories from graded classes outstripping their contemporaries from nongraded classes in all areas where achievement was measured.

Three additional observations should be made from the data presented in figure 10. First, the areas of investigation are highly restrictive. All studies limited their inquiries to student performance in reading and arithmetic and consequently little is known about the influence nongrading may have on student performance in the more conceptual areas like science and social studies. Next, from the areas included in these analyses it appears that nongrading has no discernible influence on the performance of students of diverse abilities in any particular area in the subjects studied. In nearly every instance where findings supportive of the nongraded school are reported there is an impressive body of evidence indicating that nongrading made no difference in the attainment of students or else that students from graded classes had superior performance. Lastly, it should be noted that none of these studies reported the influence of nongrading on student adjustment. Perhaps this omission reveals more than it conceals. Apparently, the contribution nongrading can make toward academic attainment is valued more that its contribution to the overall development of children. True nongrading is pervasive. It looks for an instructional organization that provides an educational program conducive to the total development of the child, not simply his development in academic areas. If improved student achievement were the principal reason prompting these schools to become nongraded, they must be bitterly disappointed with the outcomes for the attainments of students, regardless of their ability, appear to remain unchanged by nongrading.

Staff Appraisal of Nongradedness

Doubtlessly student achievement and adjustment are central to education and command primary consideration when appraising the efficacy of educational innovations. But, innovations involving alterations in school organization affect teachers as well as students. For, in the final analysis, true nongradedness demands changes not only in grouping practices but in instructional procedures, too. Teachers, then are vitally concerned with nongrading and their reactions to the program should be included in its evaluation. Policymakers should be aware of this and give long and serious consideration to the teacher's role and responsibility in nongraded classes before instituting such a program. While the reasonableness of the proposition is patent, in practice few investigations of nongraded programs have included teachers as variables in the research.

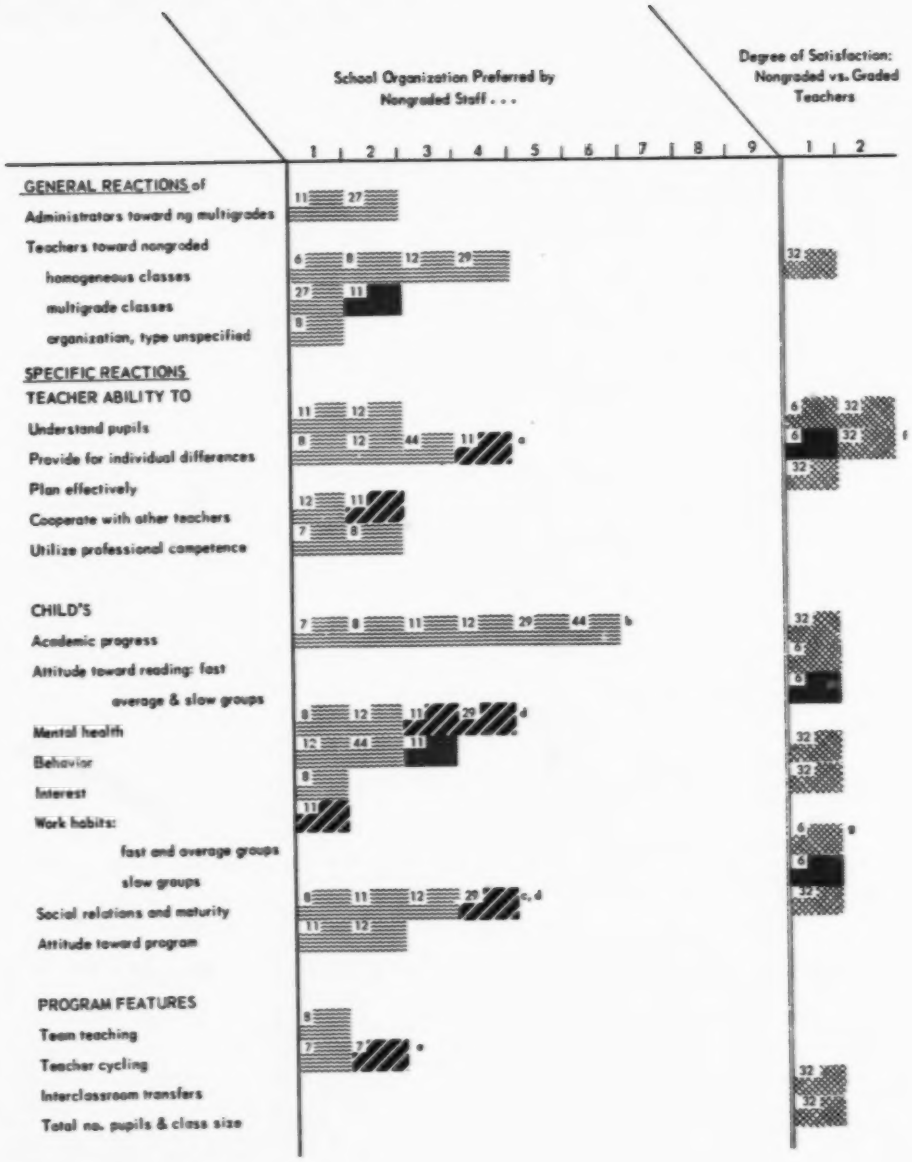
The data reported on staff reactions to nongrading are generally diffuse and the studies seldom include identical variables for these assessments. Where possible, and where the distinctive feature of the evaluation would not have been destroyed, these findings have been consolidated. Even when this has been done, the remaining list of variables employed by staffs to assess the nongraded school is extensive. Perhaps this list reflects the educational goals prized by schools and indicates the kinds of attainments teachers and administrators expect from nongrading.

Eighteen reports have sections on the staff's reactions to nongrading but only half of these provide sufficient detail or are systematic enough to include in this review (Figure 11). The accounts not included did not use standardized procedures for collecting data and the reported assessments relied heavily on gross impressions, unsolicited endorsements, or gratuitous, generalized reactions to the nongraded school.

Furthermore, these reports focus on teacher reaction to the nongraded school and administrative reaction to nongrading is reported so seldom that no generalizations from these data would be warranted. As a matter of fact, only two reports included such reactions. While these findings are reported, no extensive analysis of them was undertaken.

Reactions of Teachers in Nongraded Schools to Nongrading

Teachers from nongraded schools tend to like this type of organization and, generally, are supportive of it regardless of the procedures used to achieve nongrading. The single exception to this


School Organization Preferred by Nongraded Staff . . .
Degree of Satisfaction: Nongraded vs. Graded Teachers
1 2 3 4 5 6 7 8 9
1 2
GENERAL REACTIONS of
Administrators toward ng multigrades
Teachers toward nongraded
homogeneous classes
multigrade classes
organization, type unspecified
SPECIFIC REACTIONS
TEACHER ABILITY TO
Understand pupils
Provide for individual differences
Plan effectively
Cooperate with other teachers
Utilize professional competence
CHILD'S
Academic progress
Attitude toward reading: fast
average & slow groups
Mental health
Behavior
Interest
Work habits:
fast and average groups
slow groups
Social relations and maturity
Attitude toward program
PROGRAM FEATURES
Team teaching
Teacher cycling
Interclassroom transfers
Total no. pupils & class size

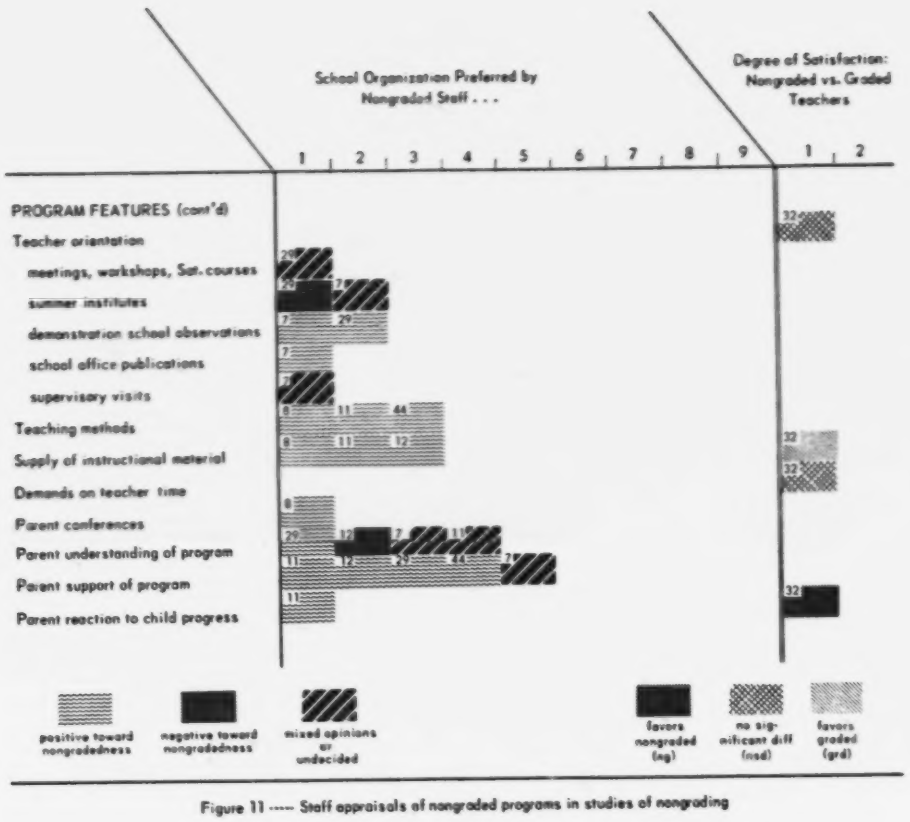


Figure 11 ---- Staff appraisals of nongraded programs in studies of nongrading

a (11): 2 of 3 comparisons yielded nsd; 1 favored ng.

b (11): academic achievement is better but they do not learn to read better.

c (29): term used in the study was "social-emotional development."

d (8): Social Progress favored ng, but Attitudes of Pupils toward the Sexes yielded no differences.

e (7): two groups of ng teachers studied – those who had stayed with a class for more than one year favor cycling, those who had not stayed with a class for more than one year had mixed reactions.

f (6): two comparisons for average group favor the ng but only one was sig.

g (6): 3 of 4 comparisons yielded nsd, 1 favored ng sig.

generalization comes when multilevel classes are used. Here their reactions towards nongrading tend to be negative. Perhaps the reason teachers like the nongraded school is because they feel it allows them to personalize learning and provide instruction more in harmony with the child's development and readiness for learning. These benefits, apparently, are limited to the child's academic development and are not as strong in the nonacademic areas of the psycho-social development of children. For in this realm, teachers in nongraded schools have conflicting views on the contribution nongrading makes towards children.

Professionally, teachers feel nongrading permits them to function and develop as professionals. Their reactions, for example, to instructional methodology and the utilization of instructional materials are positive. They are, however, less supportive in their appraisals of the procedures employed to acquaint teachers with the nongraded school. They see advantages to visiting other schools with nongraded programs and reviewing school publications on nongrading but place little value on the more formalized procedures used for preparing teachers for service in nongraded schools. They dislike, for example, workshops, courses, meetings, and summer institutes developed for the staffs of nongraded schools.

Finally, though teachers in nongraded schools feel good about working in this setting and feel well-grounded in the philosophy and rationale of the nongraded school, they are not at all convinced that parents are sufficiently knowledgeable about the nongraded school. Despite this shortcoming, however, they report that as far as they can tell parents generally support the nongraded school and are satisfied with their children's adjustment to this program.

Comparison of Appraisals by Teachers in Graded and Nongraded Schools

The presentation on teacher reaction to the nongraded school thus far has been restricted to the reactions of teachers teaching in nongraded schools. Their perceptions have not been contrasted with those of teachers in graded schools for the relative effectiveness of each organization. Unfortunately, only two studies have undertaken such comparisons (6, 32) and identical measures were not used in each of these studies. However, limited as these data are they do provide a picture very different from that presented above.

On over 70 percent of the measures used no difference in teacher satisfaction with the relative effectiveness of the graded and non-

graded school could be found. Teachers from graded and nongraded schools, for example, are equally apt to see their respective organizations as being efficacious in permitting them to get to know and understand children, meet their needs regardless of ability, and indeed provide the type and kind of individual assistance necessary to allow children to move along at a rate appropriate for them.

Where differences occur they tend to favor the nongraded school. Apparently these teachers are considerably more satisfied with the job they can do with the slow and average child than their colleagues in graded schools. They feel, for instance, these children develop positive attitudes towards reading and the slow child, especially, develops acceptable work habits. Teachers in graded schools do not share these satisfactions. Perhaps it is these very differences in attainments, too, which account for the feelings of teachers in nongraded schools that parents are satisfied with the school's educational program.

The one area where teachers from graded schools are more satisfied with their organization than teachers from nongraded schools is understandable though lamentable. Teachers in graded schools are relatively more satisfied with the instructional materials provided them than are teachers in nongraded schools. This is probably true, for, in the final analysis nongrading demands changes not only in organization but in instructional procedures, too. If teachers are to provide instruction appropriate for the very wide range of differences in their classes the standard ration of instructional materials appropriate for a graded school should be expected to fall considerably short of those required in a nongraded school. It is indeed unfortunate and shortsighted to organize a school around individual differences, commit teachers to an instructional program designed to teach to these differences, and fail to provide them with the instructional materials demanded by these commitments.

Clearly, the research on staff appraisals of nongradedness has not escaped the confusion enveloping most of the research on nongradedness. Typically, teachers favor the nongraded over the graded school and do not hesitate to endorse it. But when asked to indicate specific gains made by children in nongraded classes they are unable to do so. If this is the case one wonders what a nongraded school has to warrant teacher approval. If they cannot find real learning advantages for children in nongraded classes over graded classes, the entire program has lost its vitality and *raison d'etre*. Again, the reason for lack of discrimination could stem from a lack of real differ-

ences in instructional practices and procedures between the graded and nongraded schools *as operated*. If the salient difference between the two organizations is nominal, one can understand why teachers find no distinctive advantages to students in a nongraded school. When advantages are claimed for the nongraded school by teachers, these advantages have a remarkable similarity to the advantages claimed by the exponents of nongradedness. Typically they are general and diffuse and not substantiated by the available empirical evidence. Perhaps teachers are parroting what they have been told nongradedness will achieve rather than what they have actually seen it accomplish.

Comparison of Instructional Practices

One can hardly have journeyed this far through the research on the nongraded school without realizing that the differences in the measurable attainments of the graded and nongraded schools are meager. This is particularly incomprehensible when the multiple differences in their approaches to education are considered. An analysis of the differences in instructional procedures found in graded and nongraded schools may furnish some cues to the reasons for the similarity in attainments despite these structural differences. Here, in the final analysis, is where differences must be reflected if one is to realistically anticipate differences in the performance of children. Barring differences in instructional practices it is somewhat naive to anticipate substantial differences in the outcomes of education under the two systems.

Desirable as this procedure may be, the paucity of research on this aspect of nongraded school lessens its value and hardly yields more than a hazy impression of the differences between graded and nongraded schools. Only four studies are reported in this area (10, 41, 43, 49). At best, the available evidence on the differences in instructional practices in graded and nongraded schools is skimpy and nondescript. What is available, however, is presented in figure 12.

Obviously, marked differences between the instructional practices in graded and nongraded classes are hard to find. On the 17 criteria used in these studies only six seemed to discriminate between instructional practices in graded and nongraded classes. The nongraded school recognizes individual differences and seeks the flexibility needed to minister to these differences. If schools are nongraded one would expect to find instructional practices designed to realize these ends operative in the classroom. And, indeed, they are present to some extent.

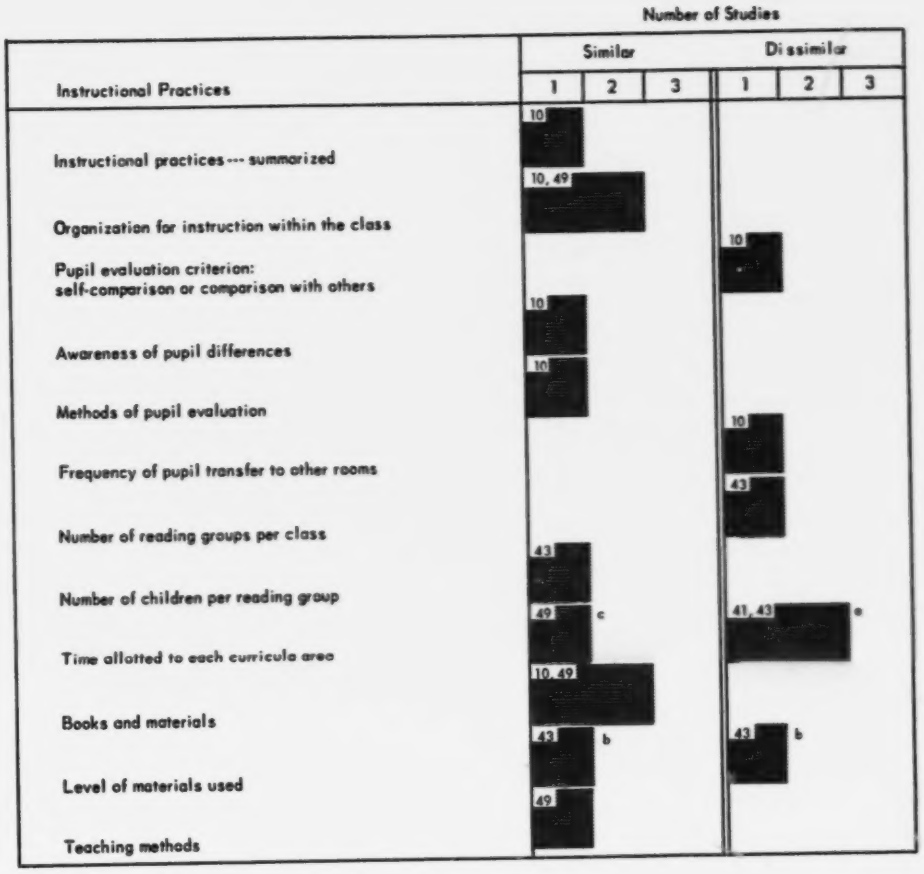


Figure 12----- Comparison of instructional practices in nongraded and graded classes

a The nongraded spent longer on reading in both studies: (41), (43).
b (43): at first year level the control used significantly higher materials but at the second year level there was no significant difference.
c (49): only time spent on arithmetic studied.

Teachers in nongraded classes report they use the pupil's personal capabilities as the criteria for assessing his accomplishments more often than teachers from graded classes and regrouping for instruction appears to occur more often in nongraded classes than in graded classes.

But here the sharp cleavage ends. Occasionally, differences in the period of instruction are noted and sometimes the level of instructional materials differ, too. Generally, what this means is that there is more time devoted to instruction in the skill areas, especially reading, in nongraded classes than in graded classes. Furthermore,

during the first year of school, only, reading materials from higher instructional levels are apt to find their way into graded classes more often than they would in nongraded classes.

But, when all is said and done, the similarities in instructional practices in graded and nongraded are greater than the differences. In either setting, teachers organize their classes very much the same and use approximately the same instructional methods. Furthermore, these findings are disconcerting in view of the basic differences in the supporting beliefs of the graded and nongraded schools; teachers evaluate pupil progress the same way in graded and nongraded classes and are just about as knowledgeable about the differences among their students in either type school. These latter, if accurate, are indeed disquieting findings for they appear to be antithetical to the central concerns of the nongraded school.

If indeed the critical difference between a graded and a nongraded school lies in the instructional process then nongrading has not reached the American classroom. Apparently the encrusted traditions of the graded school still permeate contemporary nongraded programs and all we have done is switch names. If this is so, it is little wonder research has been unable to ascertain differences in the achievement and adjustment of boys and girls from nongraded classes because it has been trying to assess the influence of the nonexisting. Until the ideals of the nongraded school are realized in the daily operations of nongraded classrooms it will remain a pious hope and not a dynamic reality. Until greater attention is given to identifying and meeting individual differences in the day-to-day instruction of boys and girls, the graded school will continue to flourish under a new name, the nongraded school. The available research strongly suggests that contemporary nongrading is in name only and until substantive alterations in instructional practices occur it is little short of foolhardy to look for marked differences in the achievement and adjustment of boys and girls from nongraded classes.

Parent and Pupil Reaction to Nongradedness

Most educators are cautious when introducing educational changes into their schools. They want reasonable assurance that the innovation is worthwhile and that it has some chance for success. Considerable study and planning typically precedes the introduction of these changes for educators know the power of the parents in fostering or blocking educational change and take time to estimate their

reactions to it. They know, from bitter experience perhaps, that educational innovations, regardless of merit will be unsuccessful unless parents understand and endorse them.

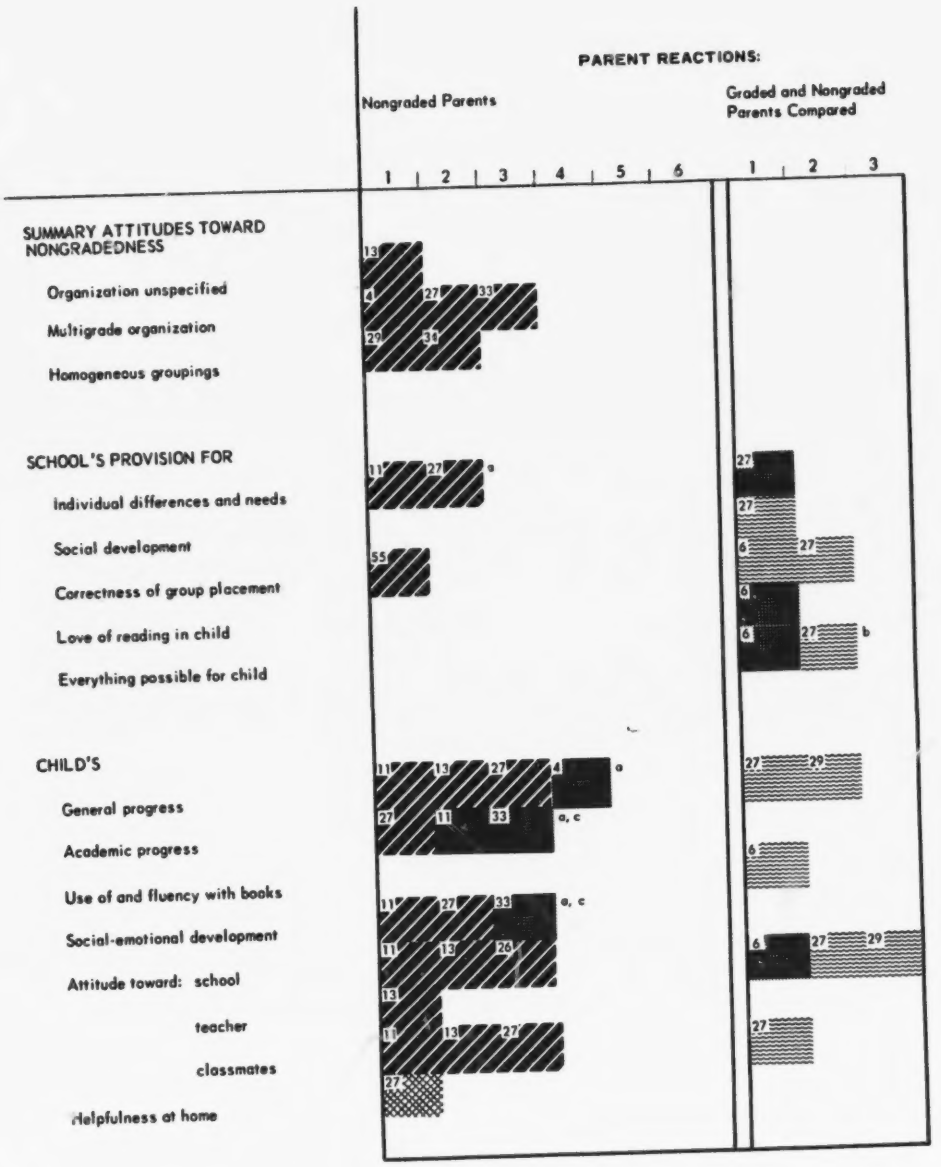
Since nongradedness requires a 180 degree turn away from the graded school so familiar to most parents, one might expect investigation of nongradedness to be vitally concerned with parental reaction. This would be understandable, but it is not the case. Only 11 studies gauged parental response to nongradedness (4, 5, 6, 11, 13, 26, 27, 29, 33, 34, 55). Outcome of these inquiries is presented in figure 13.

Obviously, a great variety of variables are used to describe parents' reactions to nongradedness, but few of these are included in more than one study. Obvious, too, is the lack of parental support reported for the graded school. Generally, parents express a gross approval of nongrading regardless of its form: multigrade classes, ability groups, or just "nongraded." Their appraisals of the specific organizational features of these nongraded programs defy patterning and tend to be diffuse and even contradictory. Possibly all that is suggested here is the wisdom of having parents appraise what are essentially professional decisions. Surprisingly, though parents cast their lot with the nongraded school, they see no specific benefits to their children's school performance not attainable in a graded school.

Children's Reactions to the Nongraded School

While there is no evidence to indicate that children prefer the graded to the nongraded school neither is there evidence to show that children unequivocally prefer the nongraded school. Typically, they exhibit no clear preferences for either type organization (Figure 14). In one study (36), as a matter of fact, the children in the nongraded classes reported they were unaware that they were in a class where a different instructional program was supposed to be in operation. If, indeed, the changes wrought in the older program to make it nongraded are so imperceptible even to the children exposed to these changes, one wonders what distinguishes it as nongraded.

Possibly, a wisdom we might prefer to ignore has come from the mouths of these children and the chief differences between contemporary graded and nongraded schools are totally nominal. If true, this would go a long way toward explaining current research, and the reasons parents and teachers have been unable to cite marked differences in the attainments of children in graded and nongraded schools.


PARENT REACTIONS:
Nongraded Parents
Graded and Nongraded Parents Compared
1 2 3 4 5 6
1 2 3
SUMMARY ATTITUDES TOWARD NONGRADEDNESS
Organization unspecified
Multigrade organization
Homogeneous groupings
SCHOOL'S PROVISION FOR
Individual differences and needs
Social development
Correctness of group placement
Love of reading in child
Everything possible for child
CHILD'S
General progress
Academic progress
Use of and fluency with books
Social-emotional development
Attitude toward: school
teacher
classmates
Helpfulness at home

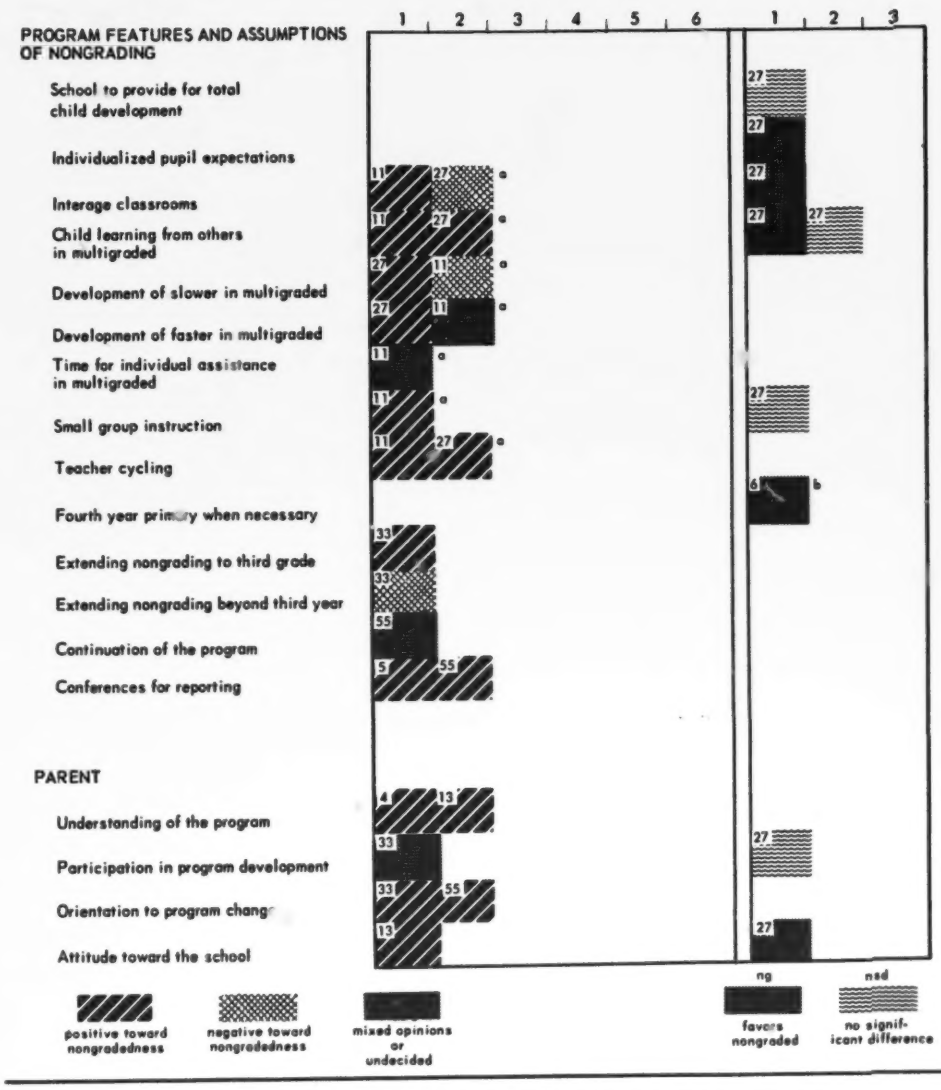


Figure 13 ----- Parent evaluations of the nongraded primary in 11 studies of nongrading

a (11): nongraded parents included two groups, those who had previously had children in the experimental program and those who had not; results reported for total group, few inter-group comparisons made.

b (6): nongraded favored in two comparisons, one difference was significant, one was not.

c (32): parents' estimation of expected outcomes.

When children post advantages for the nongraded school they seem to stand alone in this appraisal. Generally, the advantages they note for the nongraded school tend to be in the area of social and interpersonal development. The empirical evidence and the assessments of teachers and parents do not corroborate these impressions. But, in this case, this could easily mean we have depended on the wrong sources for information in this area and the best judges

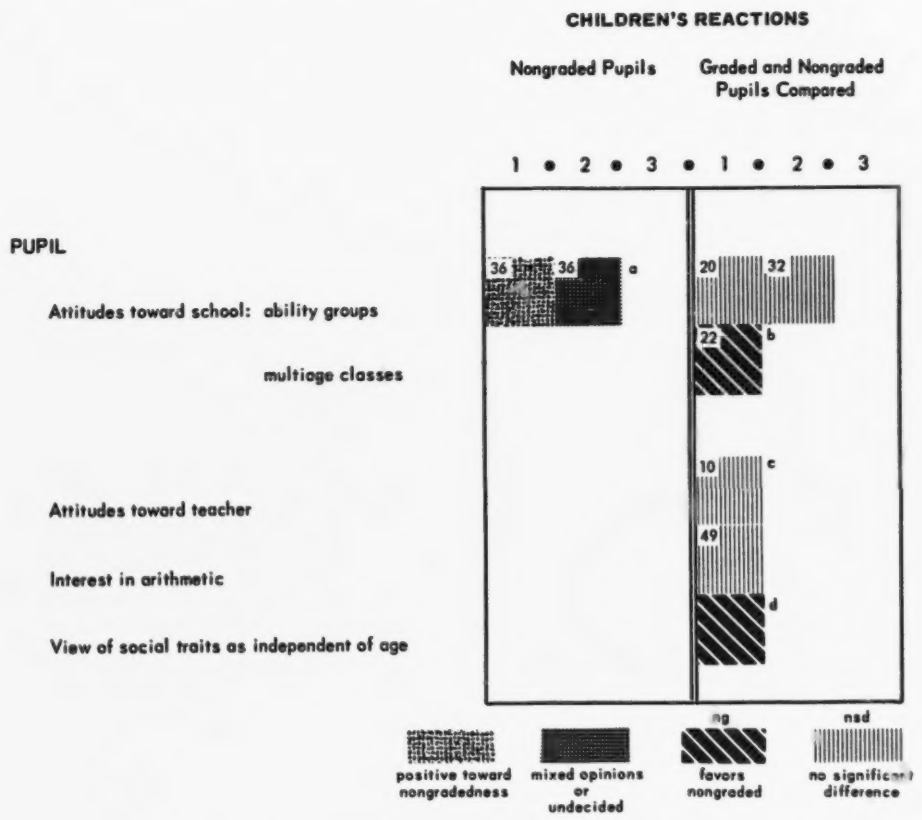


Figure 14 ----- Pupil reactions in 8 studies of nongrading

a (36): the "better group" generally favored ability grouping; the "slower group" was satisfied with the academic progress made but preferred the other plan of organization.

b (27): item analysis revealed significant differences favoring the nongraded in: pupil-pupil relationships, feelings of self-confidence and security, and group spirit and morale.

c (10): semantic differential with 9 of 25 words yielding significant differences all connoting a favorable-pejorative distinction, with the nongraded having a more favorable image of the teacher.

d (22): in all cases where a difference occurred it favored the interage, with 8 of the 17 comparisons yielding significant results.

of the influence of nongrading on the social development of children are the children themselves.

If educators are truly apprehensive about parental reaction to a nongraded school they appear to have little serious cause for it. Parents do not rise up in uncontrollable indignation at the prospects of losing their graded schools. Far from it. They tend to offer unconditional approval to nongraded programs and do not hesitate to endorse them. But, when asked to indicate the specific benefits nongrading has for children, they, like teachers, are hard put to isolate any not attainable in the graded school.

How can this be? How can a school dedicated to continuous progress for boys and girls be indistinguishable from one based on lock-step progress? Possibly these ends are being achieved so subtly and calmly that they escape parental notice. If this is the case then the school's public relations program needs evaluation.

But parents and teachers may be right and individual differences are served no better in these nongraded schools than they were in the graded schools they ostensibly replaced. In this instance a thoroughgoing reappraisal of the nongraded program as presently operated may be indicated. Whatever the reason, it does not bode well for the future of the nongraded school if its accomplishments are indistinguishable from those of the graded school.

Research Aspects of Nongraded Studies

The heart of an innovation is the differences occurring in the educational process, and the heart of research into innovations is the procedures employed to assess these changes. By examining the technical considerations of the available research on nongradedness we can gather insights into both aspects. This procedure permits us to understand what is meant by nongradedness in these studies and the procedures employed to equate graded and nongraded classes.

Definition of a Nongraded Class

Periodically throughout this review the importance of knowing what makes a school nongraded has been stressed. If the essential differences between graded and nongraded schools are simply nominal these can hardly be expected to produce discernible differences in the accomplishments of children. Few studies, furthermore, have attempted to ascertain the salient distinctions between graded and nongraded schools. Too often the reported research on the nongraded

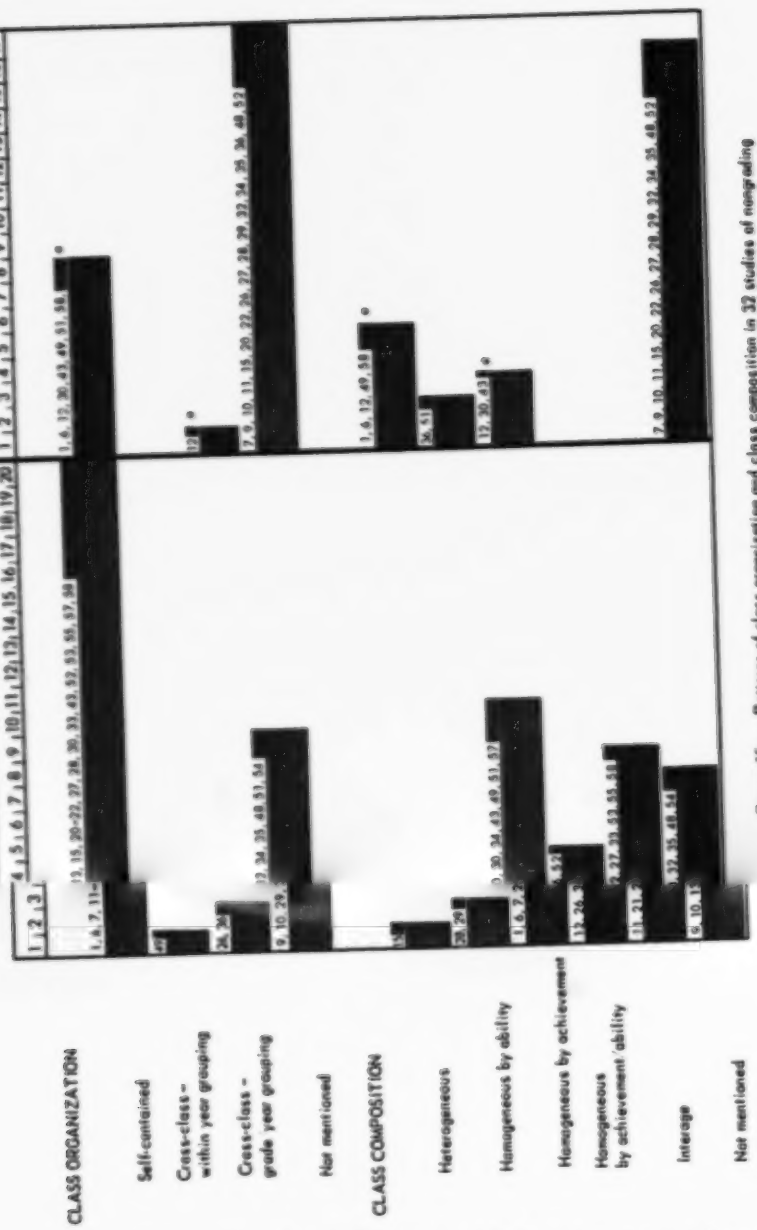


Figure 15.—Patterns of class organization and class composition in 32 studies of nongrading

a (12): 2 organizational patterns used as controls.

school fails to specify the criteria used for student placement and class organization (9, 10, 13, 29, 32, 34, 35, 48, 51, 54). Lacking such specificity, it is impossible to determine the nature of the experimental treatment or, if, indeed, any was operative. From what is reported, it is entirely possible that these "nongraded" and graded schools were identical (Figure 15).

Flexibility is the hallmark of nongrading. Departures from the old, rigid structure of the graded school are essential to nongrading. Despite these dictums, the self-contained classroom has remained

marvelously undisturbed in most nongraded schools. Rarely, in only three of the 32 studies reviewed, did cross-class grouping dislodge the well established self-contained class (26, 36, 49).

More commonly, nongrading means homogeneous grouping with achievement and ability or some combination of both used as the homogenizing elements. Advocates of the nongraded school unequivocally deny that homogeneous grouping and nongrading can be equated. The nongraded school does not hope to group away differences. This is impossible. It simply underscores the need for an organization that will recognize these differences and do something about them. But in half of the 32 studies reviewed where the criteria for grouping was discernible an administrative plan for narrowing the range of differences within the self-contained classroom was utilized (1, 6, 7, 12, 20, 26, 28, 29, 30, 34, 36, 43, 49, 51, 52, 57).

The attainments of these efforts are almost uniformly nondescript. When homogeneous grouping has been employed by any other name, even nongrading, it has failed to produce significant differences in the achievement or adjustment of boys and girls. "No significant difference" dominates these findings, and in the remaining cases, the chances of finding results favoring either the graded school or the nongraded school are about fifty-fifty. Surely these findings are not encouraging, but neither are they new. We know from the mounds of research available that homogeneous grouping is a very brittle proposition that does little or nothing to reduce individual differences and improve student performance. Apparently, the present research on the nongraded school has merely substantiated this finding.

Since innovations, by definition, are departures from tradition, they replace the old with the new and the innovation must be distinctive. In the research on the nongraded school this quality is conspicuously absent. One can seldom distinguish the new from the old, the graded from the nongraded, and just what constitutes a nongraded school is anyone's guess. The procedures employed for class formation and organization in the "nongraded" school hardly represent serious departures from the time-worn practices associated with the graded school and it is highly likely that no experimental treatment was operative in these studies.

Unfortunately this defect is not benign. It goes to the heart of the nongraded movement. Until some of the ambiguity about nongrading is removed and crisp distinctions are made between graded

and nongraded schools, educators will perpetuate the graded school in the misguided belief that they are operating nongraded schools. They will blame everything under the sun, except the programs they are operating, for the inability of research to find differences in children's achievement and adjustment.

Changes in Staff Patterns

Modifications in grouping procedures are not the only internal alterations attempted in producing nongraded schools. Striving for flexibility, modifications in staffing practices have also been tried. The reported research in figure 16, seems to suggest these modifications fall into three categories: yearly teaching assignments, flexible utilization of teachers, and teacher cycling.

Yearly teaching assignments are truly not new. They are perhaps the most familiar and prevalent staffing pattern for American schools and commonly linked with the self-contained classroom. Here, at the start of each school year, a teacher is assigned to a class and works with it for the entire school year and endeavors to meet individual differences within the limits of her own class and her own ability. Flexible utilization of teachers, is a modest variation on this more familiar theme. Teachers are assigned to predetermined curriculum levels and children, when ready, moved from one level to the next. The announced advantage of this system is that children, as individuals and not as an entire class, may move to higher levels of instruction when ready without having to wait for June promotion. In this way instruction keeps pace with ability. Parenthetically, one might observe that this arrangement is frequently criticized, and not without some justification, as an attenuation of the graded school. Its foes claim it is really more graded than the graded school because the curriculum is further atomized and the resulting nongraded school is scarcely more than the aggregate of many little graded schools. Teacher cycling, on the other hand, is different from the above two patterns. A true learning continuum is tried by assigning one teacher to a group of children, not necessarily of the same age or class placement, for a prolonged period of instruction. Generally, one teacher works with a group of children for all of their primary education and guides them to new learning experiences as they are ready. The pros and cons of this arrangement have also been vigorously debated but an extensive discussion of this is beyond the pale of this work.

Our major concern is with the comparative effectiveness of these variations in staffing patterns on instruction. Unfortunately,

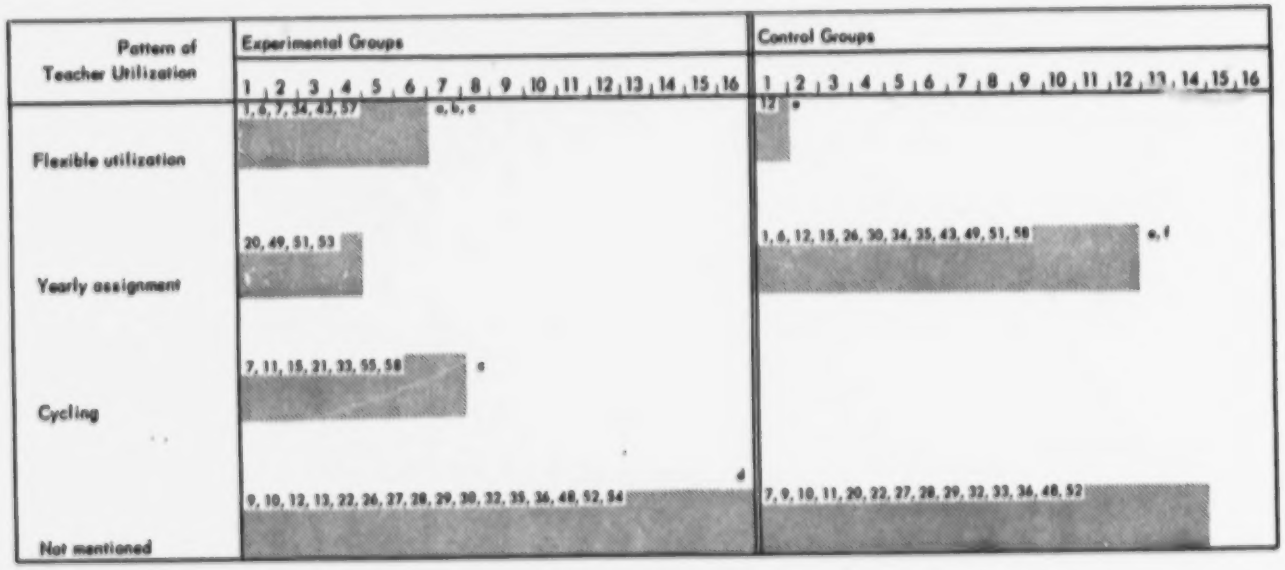

NUMBER OF STUDIES
Pattern of Teacher Utilization
Experimental Groups
Control Groups
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Flexible utilization
1, 6, 7, 34, 43, 57
a, b, c
12
e
Yearly assignment
20, 49, 51, 53
1, 6, 12, 15, 26, 30, 34, 35, 43, 49, 51, 58
e, f
Cycling
7, 11, 15, 21, 33, 55, 58
c
Not mentioned
d
9, 10, 12, 13, 22, 26, 27, 28, 29, 30, 32, 35, 36, 48, 52, 54
7, 9, 10, 11, 20, 22, 27, 28, 29, 32, 33, 36, 48, 52

Figure 16 ---- Teacher utilization in nongraded experimental and control classes in 32 studies of nongrading

a Adjustments in room assignment are made when the work is no longer appropriate for the child; it is still possible, however, that most assignments are made yearly: (1), (6), (7).

b (34): one teacher has most of the same children usually for a year, rarely longer.

c (7): it is suggested that a teacher stay with a class for more than one year; at time of study approximately 2/5 of teachers had done so.

d Flexibility is stressed in nongraded organization but no indication is given as to whether the teacher accomodates the child with new material in the same room or moves him to a different teacher and room: (28), (30).

e (12): two control groups were used.

f Control classes followed 'traditional graded pattern': (30), (34), (35), (43).

most reported research is silent on this aspect of nongraded schools and when reported, the description is generally restricted to the pattern utilized with the experimental group and no mention is made of the procedures employed with the control classes. Presumably, the one-teacher-one-class or annual assignment pattern was employed with the control classes, but this must be unmistakably labeled as speculation, not certitude.

More important for our present interest, however, is the impact of these arrangements on students. At best, they have missed their intended target and appear not to have any real influence on student achievement or adjustment. Here, as in so many instances in the past, the conclusion should be tempered because of lack of evidence. Most studies simply do not discuss the staffing patterns employed in their nongraded programs. But from what has been reported it appears that efforts to influence student achievement and adjustment through alterations in staffing patterns have been ineffectual.

Technical Aspects of the Research on the Nongraded School

This work was specifically prepared for teachers and administrators who must ultimately decide if their schools shall remain graded or become nongraded schools, not for the research specialist. If the quality of the research on which the findings presented is deficient, then the findings themselves become pitifully irrelevant. Though the research aspects of the studies have been muted it does not mean they have been ignored. While we have avoided lacing the presentation of the outcomes of the studies on the nongraded school with the traditional technical details of the research process, these can be found in this report.

A convenient, and hopefully meaningful, procedure for presenting the technical dimensions of the available research has been adopted. Data on sample size, statistical procedures, critical ratios, and the like have been concentrated in one place and appear as annotations to the references for this review. This arrangement enables us to present the product of research as well as its process and satisfy the needs of the schoolman and the researcher.

Even with this arrangement, some generalizations about the quality of the research on the nongraded school could be presented here without damaging the overall configuration of this work. First, the total number of studies in this area is discouragingly small. Proposals for educational reorganization as pervasive as nongrading must

garner considerably more critical inquiries if a clear demonstration of its values is to be achieved. If the raw number of studies available is small, the accumulation of studies providing fulsome descriptions of many of the aspects of nongrading so vital a concern to the practitioner, is infinitesimal. Many of these reports are downright barren and far too often the reader is left to conjecture about the number of students involved in these studies, the brand of nongrading being evaluated, and even the exact meaning of the findings reported. Other reports are so tinted by the writer's rosy hue of optimism about nongrading that the intrinsic value of the findings is indeed suspect.

While by and large an acceptable number of students participated in most studies, the range is staggeringly large (Figure 17). One

	Number of Studies		
Number of Students	Experimental	Control	Total
1000 or less	*25*	*22*	*21*
100 or less	10	5	3
35 or less	2	1	0
36 — 100	8	4	3
101 — 200	8	11	5
201 — 300	3	3	6
301 — 400	0	1	3
401 — 500	1	0	2
501 — 1000	3	2	2
1001 — 2000	*2*	*2*	*2*
Over 2000	*0*	*1*	*3*
Total Number of Studies	27	25	26

Figure 17. — Number of students reported participating in 27 studies on nongrading

study used as few as 48 students (55) while in another the number blossomed to 3,700 (34). In two studies, however, the results reported are based on the performances of fewer than 35 students in the experimental group (30, 33) and another eight studies conclude on the values of the nongraded school from the attainments of less than 100 children (11, 15, 22, 28, 34, 48, 51, 55). Obviously, regardless

of his predilections about the nongraded school, one would be ill-advised to place unflagging trust in the results of these studies because as the number of students participating in the studies lessens there is a corresponding shrinkage in the confidence that can be placed in these findings. Furthermore, deciding to retain an existing graded program or replace it with a nongraded one is too vital a decision to let ride on the performance of a handful of children who for one fleeting wisp of research were used to assess the potency of the non-graded school.

Other considerations of the research process should be singled out for comment, too. Fortunately, an acceptable balance appears to have been struck between the number of students in graded and nongraded classes. But notable exceptions exist. In a few of these cases the discrepancies between the number of students in the experimental and control classes is so great that it becomes conspicuous (22, 34, 48, 51, 58). These factors must be considered and weighed rather carefully when appraising the results of these studies.

With this legacy of research the practitioner must make a crucial decision: to grade or not to grade his school? The answer does not come easily and research's contribution to the solution is indeed spotty. At best it may provide the practitioner with a motto to apply to the available empirical studies on the nongraded school — *caveat emptor*, let the buyer beware.

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[4] The following format is used for each research evaluation:
Citation.

Design; Duration; Grades studied; Areas studied; N; Sampling Procedures; Controls; Tests; Statistical Procedures.

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II. Survey; unreported; unreported; unreported; 200 parents; random, parents of all in experimental and control schools; unreported; questionnaire; significance of the difference between means.

III. Experimental — control; unreported; unreported; teachers' opinions; E-23, C-23; unreported; unreported; questionnaire; significance of difference between means.

IV. Experimental — control; unreported; third; work-study skills, basic language skills, basic arithmetic skills; unreported; unreported; unreported; California Test of Mental Maturity. Gates Advanced Primary Reading Test; unreported.

V. Unreported; unreported; first, second, third; reading-word recognition, sentence reading, paragraph reading; Grade 1: E-184, C-197, Gr. 2: E-176, C-187, Gr. 3: E-188, C-171; unreported; Gates Primary Reading Test; mean difference, t-scores.

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   Experimental — control; unreported; third year; mental health academic achievement — vocabulary, reading comprehension, arithmetic skills, language, work-study skills, overall academic composite; 234; random; sex, chronological age, I.Q.; Iowa Test of Basic Skills — 6, California Test of Personality — 3, Test Anxiety Scale for Children, General Anxiety Scale for Children; means, standard deviations, t-ratios.

10. Carbone, Robert F. "A Comparison of Graded and Non-Graded Elementary Schools," *Elementary School Journal*, Vol. LXII (November 1961), pp. 82–88.

    Experimental — control, posttest only, unreported; fourth, fifth, sixth; mental health, instructional practices of teachers, achievement — vocabulary, reading comprehension, language, work-study skills, arithmetic, total achievement; E-122, C-122; random selection, controls matched; sex, age; Iowa Tests of Basic Skills, Mental Health Analysis of the California Test Bureau, Semantic Differential, questionnaire; analysis of covariance.

11. Chace, Stanley E. "An Analysis of Some Effects of Multi-Grade Grouping in Elementary School." Unpublished Doctoral dissertation, University of Tennessee, 1961.

    Experimental — control; unreported; third through sixth; paragraph meaning, word meaning, spelling, language, arithmetic reasoning, arithmetic computation; 68; random; grade, sex, age, I.Q., socioeconomic status, professional preparation and experience of teachers; Lorge-Thorndike Intelligence Tests, Stanford Achievement Test — Form M, California Test of Personality; unreported.

12. Chastain, Clarence Shelton. "An Experimental Study of the Gains in Achievement in Reading Made by the Pupils in the Intermediate Grades in the Rangely, Colorado Elementary School Who Were Instructed in Traditional Classrooms, in Achievement Platoons, and in Nongraded Classrooms." Unpub-

lished Doctoral dissertation, Colorado State University, 1961. Abstracted in *Colorado Field Studies*, Vol. XXIII (1961), p. 75.

Experimental — control; three years; fourth, fifth, sixth; arithmetic, reading; 360; unreported; sex, number of years in school, scholastic aptitude; Metropolitan Achievement Test, Lorge-Thorndike Intelligence Tests; analysis of covariance.

13. Church, Corbett. "An Evaluation of an Ungraded Primary Plan in a Declining Economy." Unpublished Master's thesis, Marshall University, Huntington, W. Va., 1963.

Experimental; unreported; unreported; parent and pupil attitudes toward the school; 192; unreported; socioeconomic background; Peabody Picture Vocabulary Test, American School Achievement Tests; unreported.

14. Clark, Jesse M. *Ungraded Empire School, Mansfield, Ohio, 1956–59.* Mansfield, Ohio: Mansfield Public Schools, n.d. (Mimeographed.)

Unreported; unreported; third through sixth; unreported; 202; unreported; unreported; California Achievement Tests; unreported.

15. Cocklin, Warren. "A Study of an Ungraded Primary School." Unpublished Doctoral dissertation, University of Pennsylvania, 1950.

Unreported; unreported; first, second, third; achievement; unreported; unreported; unreported; Kuhlmann-Anderson Test of General Intelligence, Standard Achievement Tests, Metropolitan Achievement Tests; unreported.

16. DeLong, Vaughn. "Primary Promotion by Reading Levels," *Elementary School Journal*, Vol. XXXVIII (May 1938), pp. 663–71.

Program description of an early experiment abolishing promotion and failure in the first two grades, and establishing a primary department in which children progress along a series of reading levels appropriate for their own stages of development.

17. Dean, Stuart E. *Elementary School Administration and Organization: A National Survey of Practices and Policies.* Washington, D.C.: U.S. Department of Health, Education and Welfare, 1963.

A comprehensive report of a survey concerned, in part, with the prevalence of the "primary unit" in urban places of the United States. N-4307 urban places.

18. DiLorenzo, Louis T. & Salter, Ruth. "Co-operative Research

on the Nongraded Primary," *Elementary School Journal,* Vol. LXV (February 1965), pp. 269–77.

A concise review of research on the nongraded as evidenced by the literature.

19. Elmira Heights Central School. *Non-graded Primary Unit Plan.* Elmira Heights, N.Y.: The Schools, 1959.

Experimental — control; unreported; unreported; academic achievement, mental health, parent reaction, interest; unreported; unreported; unreported; California Reading Tests, Iowa Tests of Basic Skills; unreported.

20. Enevoldsen, Corwin L. "An Evaluation of the Ungra Primary Program in Selected Schools in the Lincoln, Ne aska, Public School System." Unpublished Doctoral dissertation, University of Nebraska Teachers College, 1961. Abstracted in *Dissertation Abstracts,* Vol. XXIII, No. 9 (March 1962), p. 3054.

Experimental — control, posttest only; unreported; fourth; reading vocabulary, comprehension, arithmetic reasoning, arithmetic fundamentals, language mechanics, spelling, total achievement; E-363, C-364; unreported; home environment, financial resources, instructional practices; California Achievement Test Battery — Elementary Battery, Otis Quick-Scoring Mental Ability Test, SRA Junior Inventory — Form 4; analysis of covariance.

21. Finley, R.M. "A Study of a Self-Contained Group of Third, Fourth and Fifth Grade Children: Glencoe, Illinois, 1953-54." *Dissertation Abstracts,* Vol. XVII, No. 8 (August 1957), p. 2347. Abstract of an unpublished Doctoral dissertation, Northwestern University, 1956.

Experimental only; two years; third. fourth, fifth; academic, social, physical, emotional growth of the child; 24; unreported; social acceptance, emotional stability, physical makeup; unreported; unreported.

22. Foshay, Wellesley. "Interage Grouping in an Elementary School: A Study of Certain Effects Associated with an Age Range of Three Years in Two Elementary School Classes." Unpublished Doctoral dissertation, Type C Project, Teachers College, Columbia University, 1948.

Experimental — control; unreported; third to sixth; reading, arithmetic, total achievement; E-51, C-137; unreported; unreported; Stanford Achievement Test; chi square.

23. Goodlad, John I. "More About the Ungraded Plan," *NEA Journal*, Vol. XLIV, No. 5 (1955), pp. 295–96.

Generalized appraisals based on some schools' experiences with nongraded plans; meant to be helpful to others contemplating a change to a nongraded program.

24. ——— & Anderson, Robert H. *The Nongraded Elementary School*. Revised edition. New York: Harcourt, Brace and World, Inc., 1963.

The principal textbook on nongradedness by the "fathers of the nongraded school"; the sourcebook for the nongraded school.

25. Gore, Lillian L. & Koury, Rose E. *A Survey of Early Elementary Education in Public Schools, 1960–61*. Washington, D.C.; U.S. Department of Health, Education and Welfare, 1965.

A systematic study of elementary school organization both graded and nongraded with information on enrollments, class size, and teacher background and preparation.

26. Halliwell, Joseph W. "A Comparison of Pupil Achievement in Graded and Nongraded Primary Classrooms," *The Journal of Experimental Education*, Vol. XXXII, No. 1 (Fall, 1963), pp. 59-64.

Pretest — posttest; one year; first, second, third; spelling, reading vocabulary and comprehension; unreported; unreported; I.Q.; California Achievement Tests, Metropolitan Achievement Tests, Lorge-Thorndike Intelligence Test; analysis of covariance, t-tests.

27. Hamilton, Warren, & Rehwoldt, Walter H. "An Analysis of Some of the Effects of Interage and Intergrade Grouping in an Elementary School." Unpublished Doctoral dissertation, University of Southern California, 1957.

Experimental — control; one year; first through sixth; arithmetic, reading, language, personal and social adjustment, maturity, behavior, attitudes towards school and interage relationships, parents and teachers opinions of multigrade grouping; unreported; matched groups; sex, grade level; Lee-Clark Reading Readiness, California Achievement Battery, University of Chicago Behavior Description Chart, California Test of Personality, Vineland Social Maturity Scale, pupil attitude scale, parent questionnaire, friendship scale, social acceptance scale, sociometric checklist; t-tests.

28. Hart, Richard H. "The Nongraded Primary School and Arithmetic," *Arithmetic Teacher*, Vol. IX, No. 5 (March 1962), pp. 130–33.

Experimental — control, posttest only; unreported; third; arithmetic; E-50, C-50; unreported; sex, I.Q., age, socioeconomic status in community; California Achievement Test (Arithmetic Battery), California Test of Mental Maturity — Form S; comparison of means.

29. Hickey, Sister Mary Paul, R.S.M. "An Analysis and Evaluation of the Ungraded Primary Program in the Diocese of Pittsburgh." Unpublished Doctoral dissertation, Fordham University, 1962.

Experimental — control, posttest only; unreported; first to third; reading achievement, arithmetic computation, arithmetic problem solving, personal adjustment, social adjustment; E-745, C-603; unreported; socioeconomic background of pupils, training and experience of teachers; Metropolitan Achievement Tests — Elementary Battery — Form A, Otis Quick-Scoring Mental Ability Test: New Edition — Alpha Short Form, California Test of Personality — Primary Form AA — 1953 — Revised; analysis of variance, chi square.

30. Hillson, Maurie, *et al.* "A Controlled Experiment Evaluating the Effects of a Non-graded Organization on Pupil Achievement," *The Journal of Educational Research,* Vol. LVII, No. 10 (July-August 1964), pp. 548-50.

Experimental — control; three years; first; reading; E-26, C-26, teachers-6; random assignment to E and C; unreported; Lee-Clark Reading Test, Stanford Achievement Test — Paragraph and Word Meaning Tests of Primary Battery; t-tests.

31. Holmes, Doris. "An Analysis of Continuous Progress in the Indianapolis Schools." Unpublished Doctoral dissertation, Type B, Teachers College, Columbia University, 1953.

A case study of one school system's difficulties in implementing a program of nongradedness.

32. Hopkins, Kenneth D., Oldridge, O.A. & Williamson, Malcolm. "An Empirical Comparison of Pupil Achievement and Other Variables in Graded and Ungraded Classes," *American Educational Research Journal,* Vol. II (November 1965), pp. 207–15,

Experimental — control; four years; third and fourth; attendance sociometric patterns, teacher satisfaction, reading: vocabulary, comprehension; third year: E-62, C-88, fourth year: E-77, C-103; intelligence, achievement; California Test of Mental Maturity, California Reading Test; chi square.

33. Howell, Demont. "Parental and Professional Reaction to Nongraded Primary Grouping at Manti Elementary School, Manti

Utah, 1957–60" Unpublished Master's thesis, Brigham Young University, 1960.

Experimental — control, posttest only; unreported; unreported; arithmetic, language, reading; E-21, C-unreported, N parents-63; unreported; intelligence; SRA Mental Ability Test, Gates Primary Reading Test, California Achievement Test; t-tests.

34. Ingram, Vivien. "Flint Evaluates Its Primary Cycle," *Elementary School Journal*, Vol. LXI (November 1960), pp. 76–80.

Experimental — control, posttest only; three years; first grade followed into third; paragraph meaning, word meaning, spelling, language; first analysis: E-68, C-337, Second analysis: C-3, E-214; volunteers; unreported; Stanford Achievement Elementary Battery; comparisons of means.

35. Jaquette, Fred Charles. "A Five-Year Study to Determine the Effects of the Ungraded Classroom Organization on Reading Achievement in Grand Junction, Colorado." Unpublished Doctoral dissertation, Colorado State University, 1959.

Experimental — control, pretest — posttest; five years; first through sixth; reading achievement; E-1554, C-1963; matching; intelligence, community type — rural or urban, grade level, reading achievement; California Reading Test — Reading, California Short Form Test of Mental Maturity, Gates Primary Reading Test; t-tests.

36. Kierstead, Reginald. "A Comparison and Evaluation of Two Methods of Organization for the Teaching of Reading," *Journal of Educational Research*, Vol. LVI, No. 6 (February 1963), pp. 317–21.

Experimental — control; one year; third through eighth; reading comprehension and vocabulary; E-111 or 102, C-166 or 156; children enrolled from 9/59 to 5/60 and tested at both times; Pintner Test of General Ability — nonverbal, Iowa Tests of Basic Skills; unreported.

37. Kluwe, Mary J. "An Investigation of the Effects of an Integrated Kindergarten — Primary Program." Unpublished Doctoral thesis, Wayne State University, 1957.

Experimental — control; unreported; kindergarten, first; unreported; random; sex, chronological age, mental rating; Detroit Reading Readiness, California Test of Personality Form AA Section I, Section II; unreported.

38. Lane, Robert H. "Experiments in Reorganizing the Primary School: A Symposium," *Childhood Education*, Vol. XV (February 1939), pp. 262–71.

Summary of questionnaire responses given by school districts on the subject of organizational experiments which eliminate failures and grade lines in the primary grades.

39. Liverant, Goldie N. "An Experimental Study of Comparative Achievements in Graded and Nongraded Primary Classes." Unpublished Master's thesis, Willimantic State College, Willimantic, Conn., 1962.

Experimental — control; unreported; fourth; vocabulary, reading comprehension, arithmetic skills, language skills, work study skills; E-29, C-29; unreported; intelligence, age; Iowa Tests of Basic Skills; unreported.

40. McQueen, Mildred. *Does the Nongraded Plan Provide for Better Teaching and Learning?* A Research Report. Chicago: Science Research Associates, Inc., 1961.

A concise review of the current state of the nongraded movement in both school operation and evaluation.

41. Merrill, William E. "A Study of the Continuous Progress of Non-graded Primary Organizations in the Public Schools of Lebanon, New Hampshire." Unpublished Master's thesis, Plymouth Teachers College, Plymouth, New Hampshire, 1962.

Experimental — control; unreported; first through fourth; language arts, arithmetic, health, physical education; E-250(k-3), E-303(1-4), C-250(k-4); unreported; unreported; unreported; unreported.

42. Milwaukee Public Schools. *A Study of Primary School Organization and Regular Class Organization at Primary 6 and 3A in Eight Schools.* Milwaukee: The School System, 1952.

An evaluative study of their nongraded program.

43. Moore, Daniel I. "Pupil Achievement and Grouping Practices in Graded and Ungraded Primary Schools." Abstracted in *Dissertation Abstracts,* Vol. XXIV, No. 5 (November 1963), p. 3233. Unpublished Doctoral dissertation, University of Michigan, 1963.

Experimental — control; 1961-62; first, second; reading and arithmetic achievement, grouping practices; E-286, C-335; unreported; arithmetic, reading, age, height, weight, I.Q.; socio-economic background; Lorge-Thorndike Group Intelligence Test — Forms 1BP and 2BP, Metropolitan Readiness Test — Form S, Metropolitan Achievement Test Primary Battery I — Forms A and B, and Battery II — Form B; chi square, t-tests, z-test.

44. Morningstar, Ned. *The Aspen Continuous Progress Plan, 1963–64.* A report of the Colorado Western States Small Schools Project. Denver, Colo.: Colorado State Department of Education, 1965.

Unreported; one year; unreported; teacher evaluation of the nongraded, reading, arithmetic; 450 students, 13 teachers; unreported; unreported; SRA Achievement Tests — Reading, Arithmetic; unreported.

45. National Education Association. *Administrative Practices in Urban School Districts, 1958–59.* Research report 1961–R10. Washington, D.C.: Research Division, National Education Association, May 1961.

A statistical summary of a comprehensive survey of the administrative practices of 875 school districts who returned a questionnaire inquiry, including, among others, a question on the use and extensiveness of the "Primary Block Plan." N-1495 urban school superintendents.

46. ——— *Nongraded Schools.* Research Memo 1965–12. Washington, D.C.: Research Division, National Education Association, May 1965.

An updated report on the state of the nongraded school appended by a list of nongraded schools.

47. ——— *Nongrading: A Modern Practice in Elementary School Organization.* Research Memorandum 1961–37. Washington, D.C.: Research Division, National Education Association. October 1961.

A concise overview of the nongraded school — its rationale, development, operation, program description of selected schools, and short bibliography included.

48. Powers, Arthur E. & Schillo, Richard J. *A Comparison of the Achievement of Children in Graded and Ungraded Primary Classes. Pilot Studies.* Richmond, Va.: Division of Educational Research, State Department of Education, n.d.

Experimental — control; unreported; fourth; language arts, arithmetic, total achievement; E-33M, 32F, C-50M, 51F; unreported; intelligence language and non-language I.Q., age, socioeconomic status, readiness in reading and number work; Science Research Associates Achievement Test, Lorge-Thorndike Intelligence Test, Metropolitan Readiness Test; comparisons of means.

49. Provus, Malcolm M. "Ability Grouping in Arithmetic," *Elementary School Journal,* Vol. LX (April 1960), pp. 391–98.

Experimental — control; one year; fourth, fifth, sixth; arithmetic achievement; E-282, C-212; arithmetic concepts subtest of Iowa Basic Skills Test; unreported; Iowa Tests of Basic Skills, Metropolitan Achievement Test — arithmetic; chi square.

50. Rogers, Everett M. "What Are Innovators Like?" Printed in Richard O. Carlson, *et al. Change Process in the Public Schools.* (Eugene, Oregon: The Center for the Advanced Study of Educational Administration, University of Oregon, 1965), p. 55.

51. Skapski, Mary King. "Ungraded Primary Reading Program: An Objective Evaluation," *Elementary School Journal,* Vol. LXI (October 1960), pp. 41–45.

    Experimental — control, ex post facto; unreported; second, third; reading, arithmetic achievement; E-75, C-157; age, amount of time devoted to reading instruction, socioeconomic background, training and experience of teachers; Stanford Achievement Test, Primary Battery — paragraph meaning and arithmetic computation tests, Detroit Group Intelligence Test; comparison of means, t-tests.

52. Smith, Howard. *A Comparison of the Reading Achievement of Ungraded and Graded Primary Students.* Hillsboro, Oreg.: Hillsboro Elementary Schools, n.d. (Dittoed.)

    Experimental — control, pretest — posttest; unreported; first through fourth; reading; unreported; chronological age, intelligence; Gates Primary Reading Tests, California Achievement Tests; comparison of means, F ratios.

53. Thirkill, Evelyn S. "The Development of the Continuous Progress Plan of the North Gem Elementary School in Bancroft, Idaho." Unpublished Master's thesis, Utah State Agricultural College, Logan, Utah, 1955.

    Account of program implementation and operation.

54. Thompson, Irene L. "The Ungraded Primary as an Administrative Device." Unpublished Master's thesis, Fort Hays, Kansas State College, 1962.

    Survey; unreported; unreported; teacher and administrator opinion of nongrading; unreported; unreported; unreported; unreported; unreported.

55. Thompson, Mr. and Mrs. John F. *The Nongraded Elementary School: The Continuous Progress Program.* A report of the New Mexico Western States Small Schools Project. Santa Fe, N. Mex.: The State Department of Education, n.d.

A portrayal of the experiences of a small, isolated, eight grade two-teacher school, with the nongraded.

56. Tschippert, Olive B. "The Primary School: General Philosophy and Plan." Aliquippa, Pa.: Aliquippa Public Schools, 1960.
One school's interpretation of nongrading.

57. Wheat, Leonard B. "The Flexible Progress Group System," *Elementary School Journal*, Vol. XXXVIII (1937), pp. 175–83.
A description of what is generally accepted as the first nongraded program, that introduced in Western Springs, Ill., in 1934.

58. Yerry, Marie J. & Henderson, Edward. *Effects of Interage Grouping on Achievement and Behavior.* End-of-the-Year Report. Bethpage, N.Y.: Plainedge Public Schools, July 1964. (Mimeographed.)
Experimental — control, pretest, posttest; one year; first through sixth; reading, arithmetic, English, total achievement, school anxiety, defensiveness, amount of friendship and/or social acceptance; E-456, C-197; unreported; similar enrollment, parental socioeconomic level, experience of teachers, achievement, sociometric ratings, adjustment; California Achievement Tests, Ohio Social Acceptance Scale, Sarason Anxiety Test; one-way analysis of variance.

59. Zerby, John R. "Comparison of Academic Achievement and Social Adjustment of Primary School Children in the Graded and Nongraded School Program," *Penn State Review of Educational Research*, Vol. XIII (May, 1961), p. 33. Abstract of an unpublished Doctoral dissertation, Pennsylvania State University, 1960.